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WAR MACHINE

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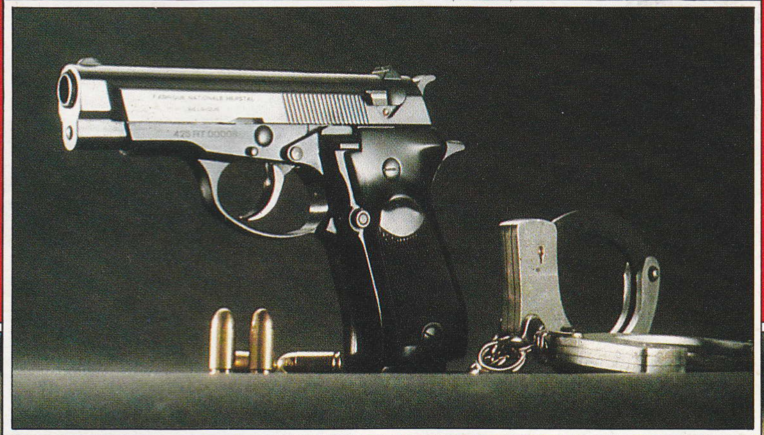
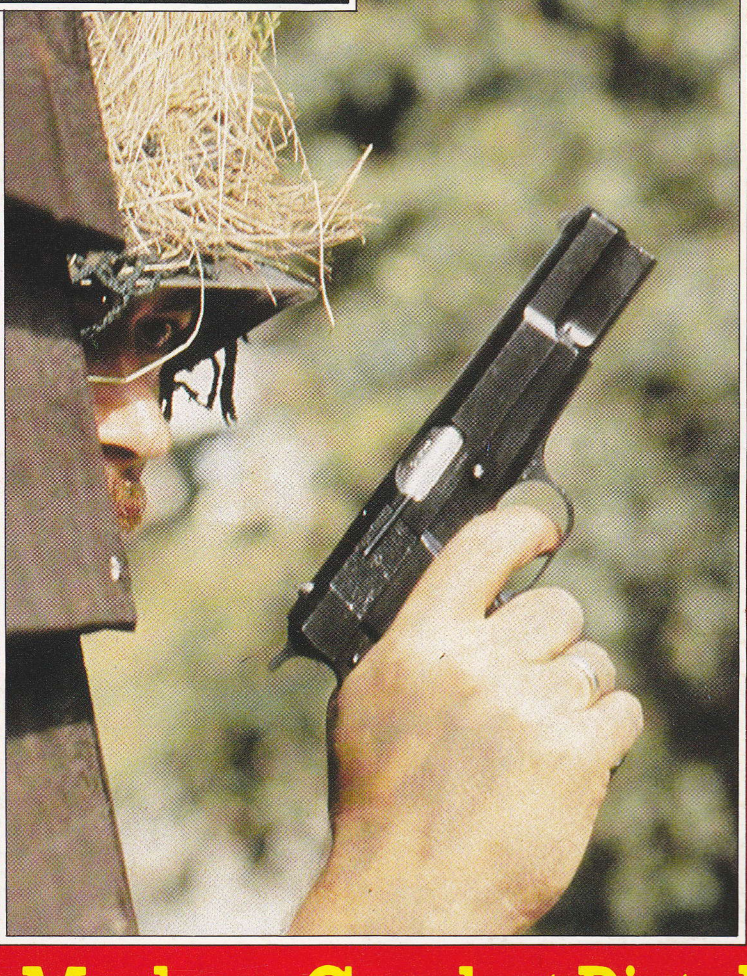
The Automatic Choice?

In Bandit Country

Replacing a Legend





A fully illustrated guide to Modern Combat Pistols

WAR MACHINE

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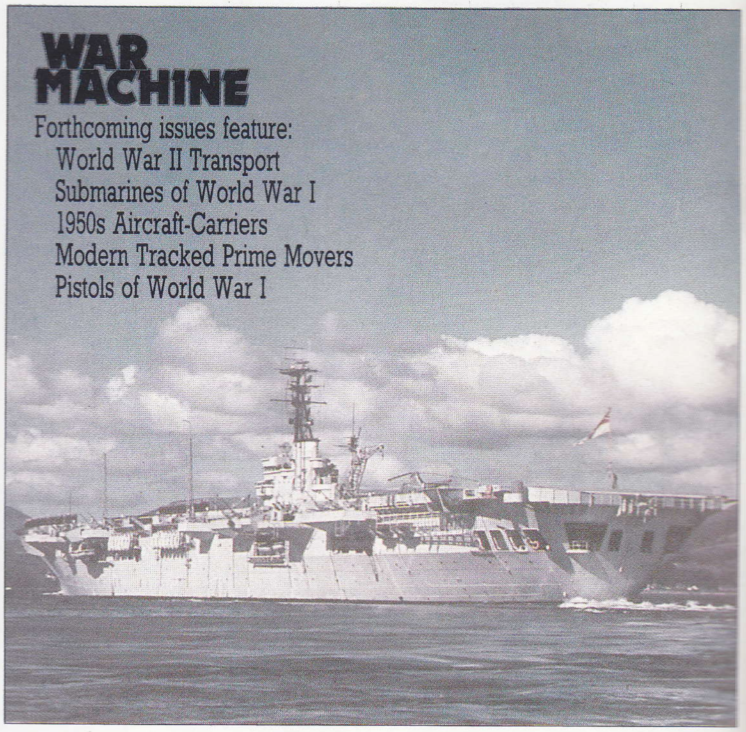

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Modern Combat Pistols

Pistols remain in widespread military service, despite their limited range and the increasing handiness of sub-machine guns. In the USA their design is a matter of national pride but, surprisingly, the Italian firm of Beretta won the competition to supply a new pistol for the US Army.

Two Portuguese soldiers demonstrate that carrying a side-arm is still no guarantee of personal safety. Given their lack of range and accuracy, pistols often serve as much in a symbolic as in a practical role; nevertheless, manufacturers strive to improve their design with larger magazines and more reliable safety devices.

For many years military prophets have forecast the demise of the military pistol in both automatic and revolver forms. Such prophets have a case: in an era dominated by the ever-increasing firepower of assault rifles and machine-guns it would appear that this weapon no longer has a viable combat role and indeed, when the operational requirement is considered objectively, it is difficult to find one. Yet the pistol continues to flourish.

The short answer to the question of why this should be the case is that although there is no longer an operational field requirement for the pistol, there are still many other roles it can cover. Many military personnel, even in the front line, are unable by the very nature of their duties to carry any other weapon. Personnel in this category include tank crew, signallers, commanders and many others who would have to venture into battle areas unarmed unless they carried a pistol.

Thus the military pistol survives and continues to be produced in as wide a variety of forms and shapes as ever. As will be seen in this study the revolver continues to make its presence felt, although many of the potent Magnum rounds (rounds with a particularly heavy propellant load) have yet to have any marked effect on the front-line combat scene, for reasons that will be unfolded in the various entries. The automatic pistol continues to make use of all the technological innovations that arrive, and while it would seem that the whole spectrum of changes that could be effected to the automatic were made long ago, a short perusal of the contents of these pages will reveal that changes are still possible. Most of them involve the ever-increasing use of a safety mechanism to prevent the pistol firing when dropped or other mischances of this type. Modern trigger mechanisms can now be called upon to control limited bursts of fully automatic fire (usually three rounds) as a means of converting ordinary automatic pistols into powerful close-range weapons. Weight can be saved by using light alloys or plastics to replace steel components, and so on.

The importance that the pistol still possesses can be gauged from the great interest and investment in the American military pistol trials held over the last few years. The US armed forces have made a considerable allocation of defence capital to ensure they have a pistol suitable for their requirements into the next century. If the Americans are thinking in such terms it is certain that others are too, so it seems that the military pistol will be with us for some time to come.

The Browning High-power is one of the world's most widely used pistols; today it is in service with over 50 countries. Its 13-round magazine capacity gives the weapon a bulky butt grip which does not detract from the handiness of the gun. Introduced by Fabrique Nationale in 1935, it remains one of the most successful pistol designs ever produced.

FRANCE

French automatic pistols

The most important of the post-war French automatic pistols has been the **mle 1950 MAS** which was manufactured at both St Etienne and Chatellerault. It is no longer in production, but is still a standard pistol of the French armed forces and it has also been sold to many ex-French colonial forces.

The MAS uses a standard swinging-link locking mechanism and a virtually standard trigger system with all the usual safeties. The trigger mechanism uses an external hammer and the hammer can be lowered without firing if the safety catch is set to 'Safe'. When the pistol is in the firing condition a red dot appears next to the safety catch. Nine rounds can be loaded into the box magazine. All in all the MAS is a fairly straightforward pistol with few frills or items of particular note.

Another post-war French automatic pistol is the **Model D MAB**. Unlike the MAS, which fires the 9-mm (0.354-in) Parabellum cartridge, the Model D MAB fires either the 7.65-mm (0.301-in) or 9-mm Short (also known as 0.380-in Auto). These less powerful rounds are used as the Model D MAB was originally designed for police use where more powerful ammunition such as the 9-mm Parabellum is not normally needed. Some military sales of the Model D MAB have been made, however, as it is a handy little pistol with good accuracy. It has no external hammer, and this allows the weapon to be carried in a pocket without any danger of the hammer catching in clothing. Despite its small size the Model D MAB still uses a nine-round box magazine, and a feature of this pistol is that it can be converted from 7.65-mm to 9-mm Short simply by changing the barrel, no other alterations being necessary. The cartridge fired by the Model D MAB is the 7.65-mm Longue, which is used only by the French.

The Model D MAB is still in production.

Specification

MAS

Calibre: 9 mm (0.354 in)

Weights: empty 0.86 kg (1.896 lb); loaded 1.04 kg (2.3 lb)

Lengths: overall 195 mm (7.677 in); barrel 112 mm (4.4 in)

Muzzle velocity: 354 m (1,161 ft) per second

Magazine capacity: 9 rounds

Model D MAB

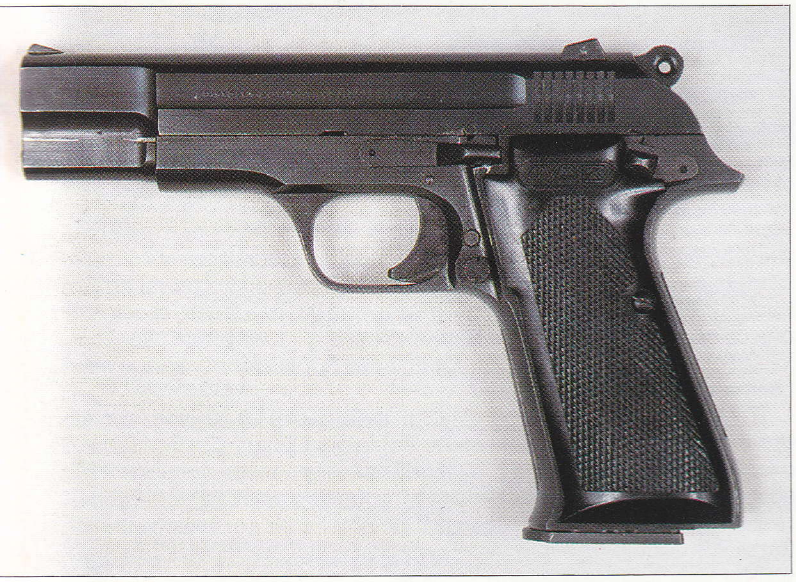
Calibre: 7.65 mm (0.301 in)

Weights: empty 0.725 kg (1.6 lb); loaded 0.825 kg (1.82 lb)

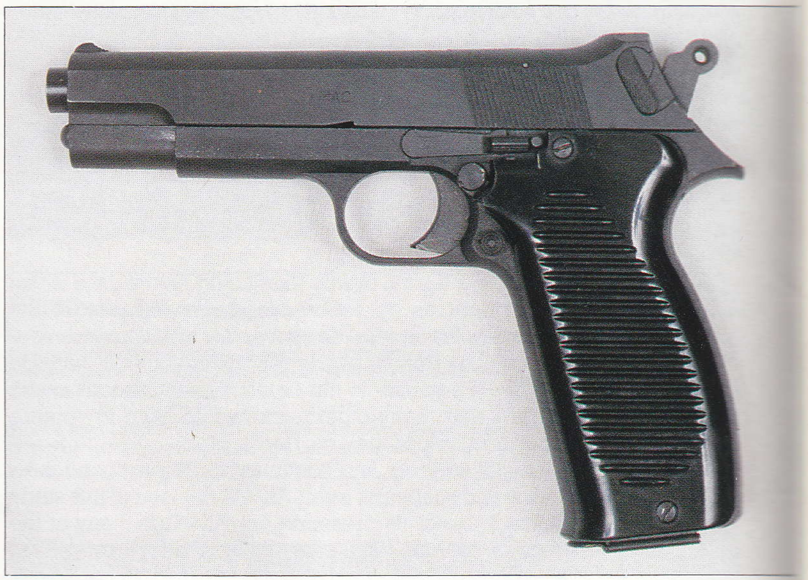
Lengths: overall 176 mm (6.93 in); barrel 103 mm (4.05 in)

Muzzle velocity: 365 m (1,197 ft) per second

Magazine capacity: 9 rounds



The 9-mm PA15 MAB is the current service pistol of the French army, in production at Manufacture d'Armes Automatiques in Bayonne. The bulky grip of this delayed blowback design holds up to 15 Parabellum rounds.



The post-war 9-mm Model 1950 MAS self-loading pistol (made by Chatellerault as the MAC) used the basic M1911 Colt mechanism with modifications to its safety mechanism. It remains in French service.

SWITZERLAND

SIG-Sauer P220

For very many years the Schweizerische Industrie-Gesellscahft (SIG) has been producing excellent weapons at its Neuhausen Rhinefalls factory, but has always been restricted by the strict Swiss laws governing military exports from making any significant overseas sales. By joining up with the West German J P Sauer und Sohn concern, SIG was able to transfer production to West Germany and gain access to more markets, and thus SIG-Sauer was formed.

One of the first military pistols developed by the new firm was the **SIG-Sauer P220**, a mechanically-locked single- or double-action automatic pistol. When dealing with the P220 it is difficult to avoid superlatives, for this is a truly magnificent pistol in many ways. Its standards of manufacture and finish are superb, despite the extensive use of metal stampings and an aluminium frame to keep down weight and cost. The pistol handles very well, being one of those weapons that immediately feels right as soon as it is picked up. It is accurate, and the overall design is such that it is difficult for dirt or dust to find its way into the interior and cause stoppages. Despite this the pistol is easy to strip and maintain, and has all the usual pistol safeties.

One design feature of the P220 is that it can be supplied in any one of four calibres. These are the usual 9-mm (0.354-in) Parabellum, 7.65-mm (0.301-in) Parabellum, 0.45-in ACP (11.27-mm, ACP standing for Automatic Colt Pistol) and 0.38-in Super (9-mm not to be confused with 9-mm Parabellum). It is possible to convert any pistol from one calibre to another and kits can be provided to convert any pistol to fire 0.22-in Long Rifle (5.59-mm) for training purposes. Using 9-mm Parabellum the magazine holds nine rounds, but when firing 0.45-in ACP only seven rounds can be accommodated.

The excellence of the P220 has rewarded SIG-Sauer with a stream of orders. To date well over 100,000 have been produced, one of the largest orders coming from the Swiss government who ordered a batch of 35,000 weapons. The P220 is now in service with the Swiss army, which knows it as the 9-mm **Pistole 75**, a designation which sometimes provides the P220 with the name **Model 75**.

There is a later version of the P220 known as the **P225** which is slightly smaller and chambered only for the 9-mm Parabellum cartridge. This version has been selected for Swiss and West German police use as the **P6**.

Specification

Pistole 75

Calibre: 9 mm (0.354 in)

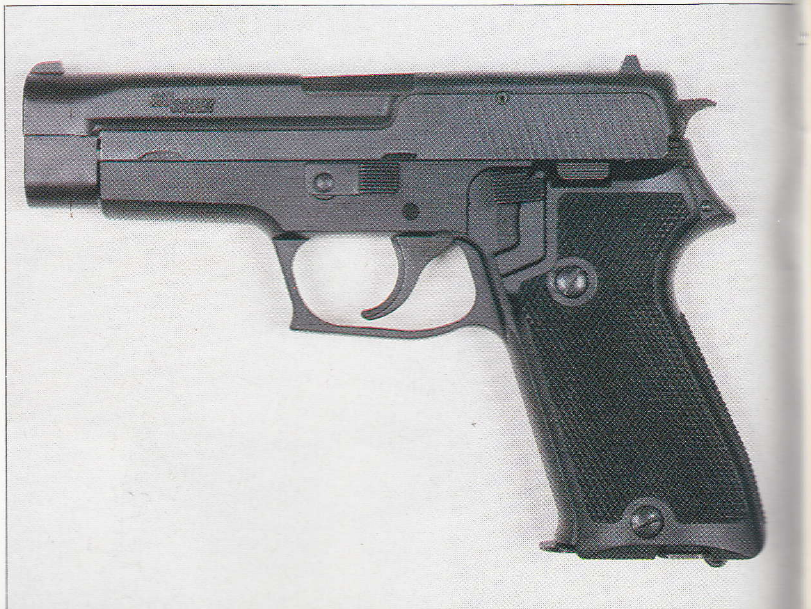
Weight: empty 0.83 kg (1.83 lb)

Lengths: overall 198 mm (7.8 in); barrel 112 mm (4.4 in)

Muzzle velocity: 345 m (1,132 ft) per second

Magazine capacity: 9 rounds

The magnificent SIG-Sauer P220 resulted from a collaborative venture between the Swiss SIG company and JP Sauer und Sohn to produce a pistol for export, unfettered by Swiss government restrictions. It is available in 0.45 ACP, 9-mm Parabellum, 7.65-mm Parabellum and even .22 LR.



The Automatic Choice?

The pros and cons of self-loading (automatic) pistols and revolvers have become less notable since World War II as the reliability of automatics has steadily increased. Police forces require unfailing reliability, which has led many to favour the revolver, whereas the military generally prefers the large magazine capacity of an automatic.

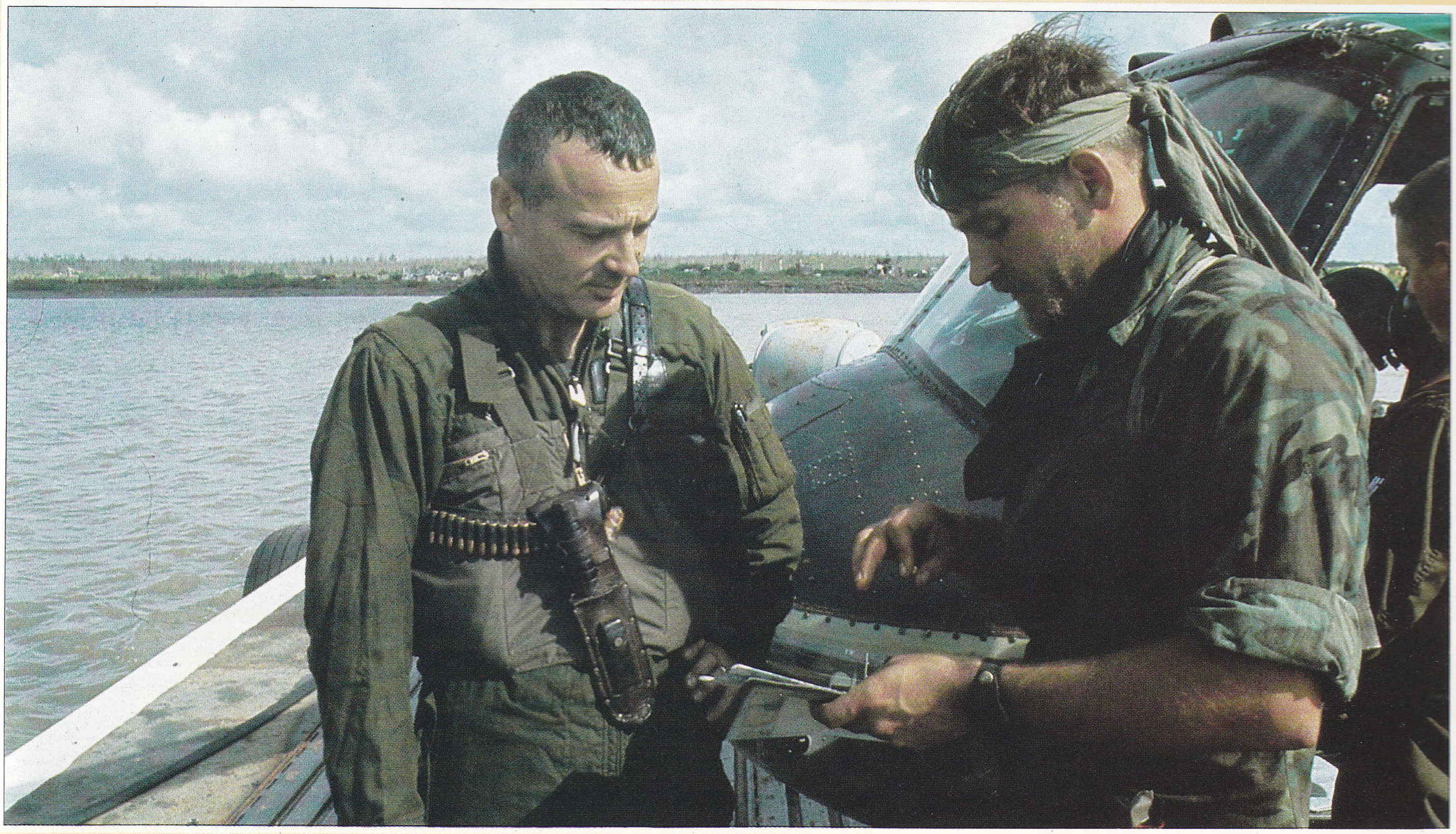
Ever since the automatic pistol arrived on the small-arms scene there has been a constant battle between the advocates of the revolver and the advocates of the automatic pistol. Apparently endless reams of paper have been devoted to the arguments produced by both sides, and no doubt more will be consumed in the future, but the simple fact is that the finer points of both arguments have been lost in the reality that on the military scene at least the automatic pistol reigns virtually supreme.

The word 'almost' has to be used, for even today in an era when virtually every armed force now makes use of automatics the revolver is still around: it seems that the type will not go away. So rather than go into all the old arguments as to the merits of one type of pistol against the other it might be as well to see how both weapons have reached the position in which they are today.

The automatic pistol has long since passed the point in its development where it had an inherent lack of reliability in comparison with the revolver. At one time the automatic pistol used a bewildering array of mechanisms to make it work, and these often went wrong or broke. This no longer applies. The modern automatic is a robust and reliable weapon, if properly looked after, something that also applies to the revolver. (Generally speaking revolvers take less maintenance skill and training than automatics.) Then there is the magazine capacity factor. Most modern military automatics can carry more ready-to-use ammunition than revolvers. It is difficult to find a large-calibre revolver that can accommodate more than six rounds, while some modern automatics can accommodate up to 19 (such as in the Austrian Steyr GB), and in action those extra rounds can be a definite advantage. As far as handling is concerned the automatic again scores, for the ammunition stowage in the butt usually makes the automatic a more manageable weapon to aim and handle as most of the weight balances securely in the hand; on the revolver it is usually forward, making the weapon muzzle-heavy. Another factor in favour of the automatic is that it is now an inherently safe weapon, some designs having built-in safeties to

Below: Pistols have been carried by airmen as side-arms since the beginning of military aviation, and the Vietnam War proved no exception, with the wide variety of regulation service pistols carried by helicopter crew supplemented by guns from the commercial market.

Right: In many countries the pistol remains an instrument of law enforcement. Here a member of a Californian SWAT (Special Weapons and Assault Team) unit snatches a child to safety as her kidnapper is dealt with by his colleagues.

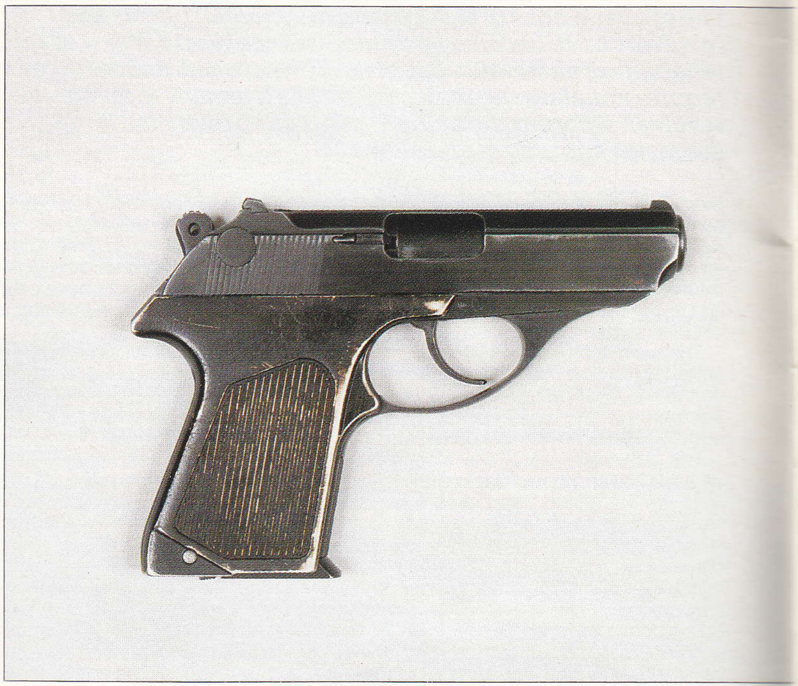


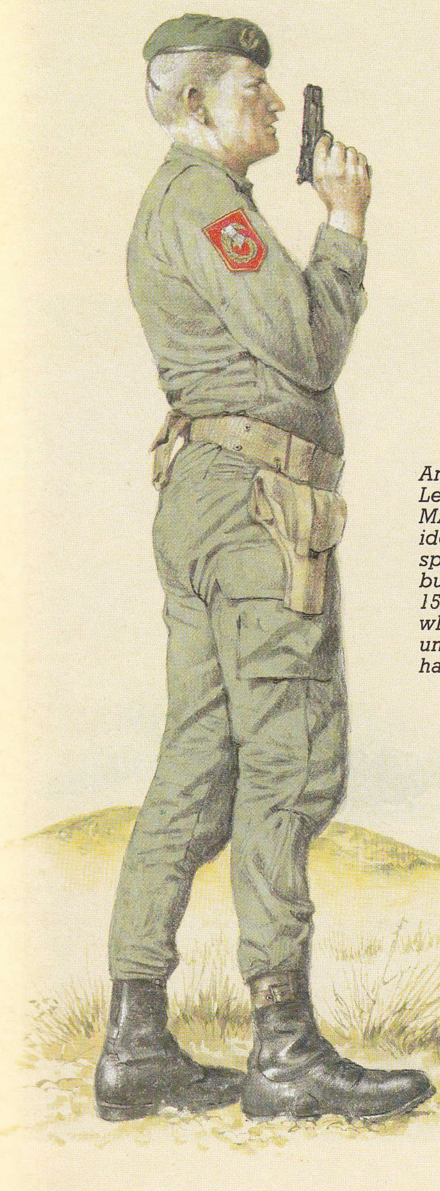
the extent that nothing will fire them apart from a deliberate pull of the trigger, and that only comes when the weapon has to be used. The same cannot be said of many revolver designs (and some of the older automatic pistol designs) for they have an unfortunate tendency to fire if dropped or if a hammer gets snagged in clothing or something such as undergrowth.

How then does the revolver survive in military hands? The main reason is quite simply that it is inherently much stronger in design terms. The basic frame of a revolver can be much more solid and sturdy than that of nearly all automatics, enabling it to take not only much heavier knocks but heavier ammunition loads such as the potent Magnum ammunition. Ensuring that automatics can fire such loads introduces the problems of positive locking mechanisms that add both complication and weight, whereas most revolver frames only require a bit more beefing up, if that.

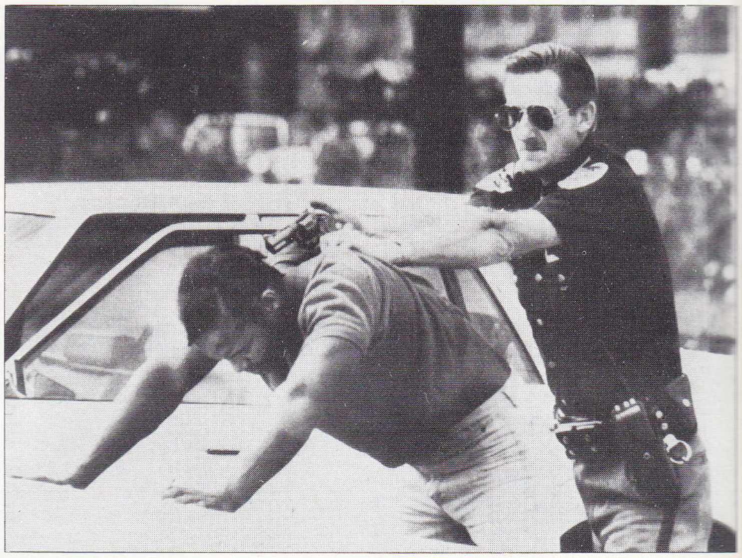
The argument against this is that most military users do not require the Magnum loads as they are too powerful to employ to their full advantage without the devotion of an inordinate amount of training time to their use; and indeed most combat soldiers have enough training obligations already without having to learn how to handle pocket artillery. Some soldiers consider that the considerable recoil and muzzle blast produced by the 9-mm Parabellum pistol is quite enough to handle, and even the smaller and lighter Magnum loads produce considerably more blast and recoil, making aiming and handling difficult under combat conditions.

But for security and military police personnel the Magnum loads are ideal, for such personnel can devote the necessary training time, and they can use their considerable weapon power to good effect. The combat soldier needs something that is generally handier and less trouble to use. One added bonus for police and similar users is that the Magnum revolvers are unmistakable in appearance, giving rise to the 'Dirty Harry' syndrome where even hardened felons or subversives are unwilling to consider the consequences of what might happen when a Magnum round is fired at them. Thus the revolver remains in military hands, not normally in front line use but behind the lines on important security and guard duties, where it will remain for many years to come.





An officer of the French Foreign Legion brandishes a 9-mm PA 15 MAB automatic, a distinctive weapon identified by the very prominent spur at the back of the receiver and a burr-type hammer. The PA 15 carries 15 9-mm Parabellum cartridges, which give it a very bulky grip and, unusually for an automatic pistol, it has a delayed blowback action.

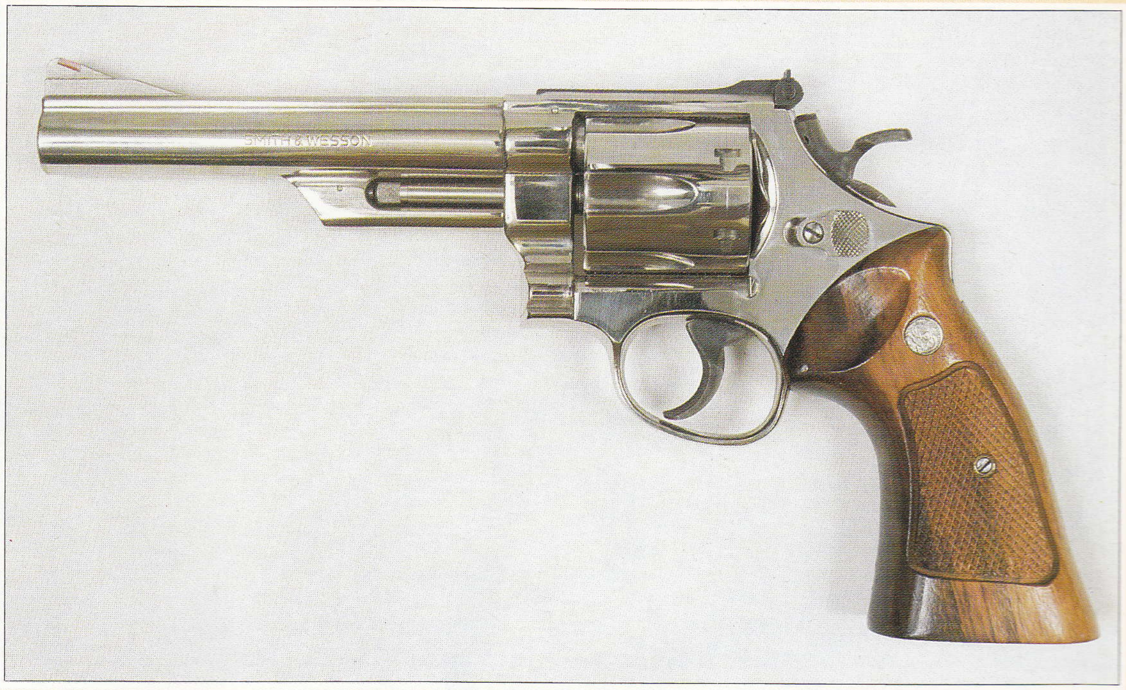


Below: The revolver may lack the magazine capacity of modern automatics, but in trained hands this is not a problem. Here a New Orleans policeman takes cover behind a car during a shoot-out.

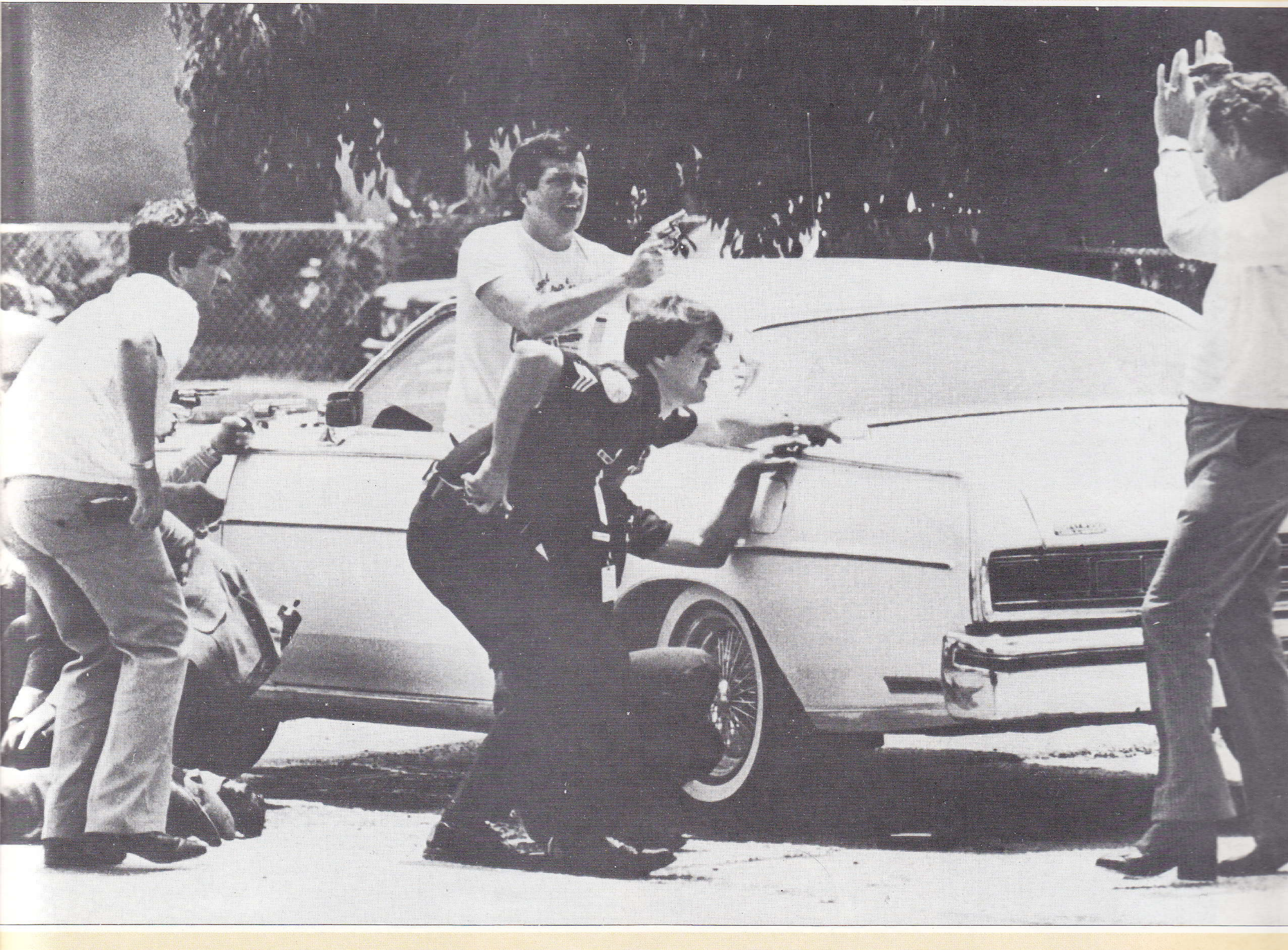
Above: 'You have the right to remain silent' – a Magnum to the back of the neck is a powerful argument for surrender. This bank robber was arrested after stalling the getaway car at a junction.

Left: The 5.45-mm PSM is currently being introduced to the police and internal security forces of the Warsaw Pact countries. A small, notably slim pistol, it fires a round with low stopping power (unless it has been designed to tumble in flight).

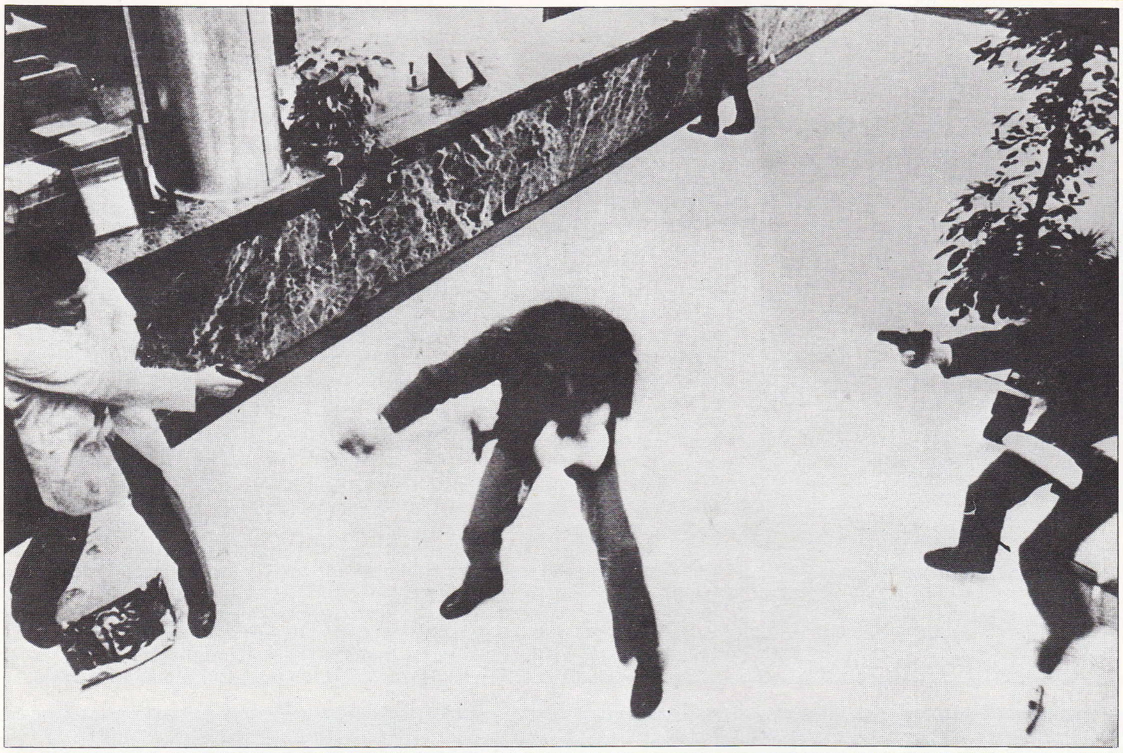
Right: The weapon made famous by Clint Eastwood's 'Dirty Harry' films was the mighty 0.44 Magnum, made by Smith and Wesson. The fashion for revolvers of incredible stopping-power was followed by many armed forces at the beginning of the century; it remains to be seen whether modern military services will do so once again.



Below: A drugs raid in Miami involves an impressive demonstration of police firepower. Revolvers remain perhaps the best armament for regular police and paramilitary work, where ruggedness of design and reliability are more important than the ability to carry a large number of rounds.

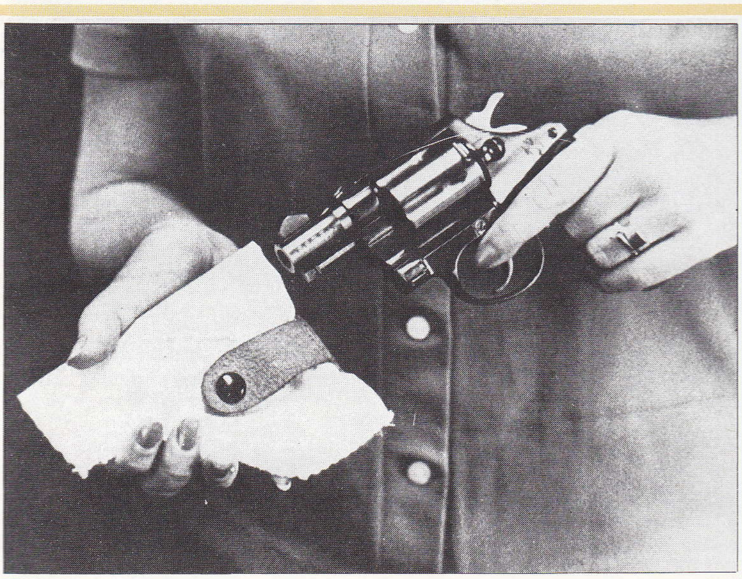


The Automatic Choice?



Above: A Luger automatic and a silenced revolver form part of the personal armament of French gangster Jacques Mesrine, killed by police in 1979.

Left: A bank security camera in Cologne records the shooting of a policeman (centre).



Smaller automatics make suitable weapons for female personnel, although the 6.35-mm 'Baby Berettas' held by these Italian policewomen are hardly noted for their stopping power. To defeat an armed enemy with such a light cartridge would demand a high standard of shooting.

Above: South African women apparently take a more businesslike attitude to firearms; this curious-shaped holster was designed to accommodate a snub nosed 0.38 revolver in a woman's bra. In a timing test conducted by the manufacturer a woman drew and fired in three seconds.

Left: The bra holster proved unpopular due to its interesting effect on the figure; this is the replacement. The recent upsurge in urban violence in South Africa led to a rise in demand for ammunition, but not guns.

Right: Heckler & Koch designed the P7 automatic specifically with police use in mind; first issues to the West German army are going to the military police. The gun features a recoil-braking system which allows steadier shooting.

ISRAEL

IMI Desert Eagle

IMI have entered the pistol field with the 'Desert Eagle', an automatic chambered for the ever-popular 0.357 Magnum cartridge. Military interest remains speculative.

The automatic pistol produced by Israel Military Industries and known as the **IMI Desert Eagle** was originally an American design proposed by M.R.I. Limited of Minneapolis, Minnesota. The basic concept has been developed in Israel to the point where the Desert Eagle is an extremely advanced and powerful weapon.

The Desert Eagle can be converted to fire either the 0.357-in Magnum (9-mm) cartridge or the even more powerful 0.44-in Magnum (10.92-mm) round; the latter cartridge is one of the most powerful pistol rounds available. All that is required to convert the pistol from one calibre to the other is the replacement of a few parts. To ensure complete safety when using these large rounds the Desert Eagle uses a rotating bolt for a maximum locking action. The safety catch can be engaged by either the right or left hand, and when in position on 'Safe' the hammer is disconnected from the trigger and the firing pin is immobilized.

The pistol uses a 152-mm (6-in) barrel as standard, but this basic barrel is interchangeable with barrels 203 mm (8 in), 254 mm (10 in), and 356 mm (14 in) long. The extended barrels are intended for long-range target shooting and may be used with a telescopic sight fitted to a mounting on top of the receiver. No special tools are required to change the barrels.

Several other options are available for the Desert Eagle. The trigger can be made adjustable and several different types of fixed sight can be fitted. The trigger guard is shaped to be used with a two-handed grip, although special grips can be fitted if required. The normal construction is of high quality steels, but an aluminium frame can be supplied.

To date the Desert Eagle has been marketed with the civilian target shooter or enthusiast in mind, but it could also make a very powerful military or police weapon. However, most military authorities usually frown upon the use of Magnum cartridges as they are really too powerful for general military or police use and require a great deal of careful training for their best capabilities to be realised. Thus pistols such as the Desert Eagle seem destined to remain in the hands of special police units and enthusiast who simply want the best and most powerful hand-guns available.

Specification

Desert Eagle
Calibre: 0.357 in or 0.44 in Magnum
Weight: empty 1.701 kg (3.75 lb)
Lengths: overall with 6-in barrel 260 mm (10.25 in); barrel 152.4 m (6 in)
Muzzle velocity: 0.357 Magnum 436 m (1,430 ft) per second; 0.44 Magnum 448 m (1,470 ft) per second
Magazine capacity: 0.357 Magnum 9 rounds; 0.44 Magnum 7 rounds

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ITALY

Beretta Model 1951

The Beretta Model 1951 is the standard pistol of the Italian armed forces and has been exported to a number of countries, including Israel and Egypt. This is an example manufactured in Egypt, where the locally produced model is called the Helwan.

Pietro Beretta SpA has been making high-quality automatic pistols at Brescia for decades, and as over the years it has made its mark on pistol development in a number of ways it came as something of a surprise when in 1951 Beretta developed a pistol that did away with the company's former use of a simple blowback mechanism in favour of a locked breech. In this system the breech and barrel are locked together for an instant after firing until they are unlocked by contact with the frame after a short recoil movement.

This pistol became known as the **Beretta Model 1951**, and it was also known at one time as the **Model 951** or **'Brigadier'**. It retained the usual Beretta trademark of an open-topped slide, but early hopes that this slide could be made from aluminium did not materialize and most production models use an all-steel unit. The first examples of the Model 1951 did not appear until 1957 as a result mainly of attempts to develop a satisfactory light slide. In more recent years the aluminium slide has become available as an option.

As always on Beretta weapons, the standard of finish of the Model 1951 was excellent and the pistol proved to be rugged and reliable. It was not long before overseas sales were made, and the Model 1951 became the standard service pistol of Israel and Egypt. In fact a production line was established in Egypt to manufacture the Model 1951: that was during the 1960s, and the Model 1951 is known in Egypt as the **Helwan**. The Model 1951 is also used in Nigeria and some other countries. The Italian armed forces also use large numbers of this pistol.

The Model 1951 continues to use the basic Beretta layout, despite the adoption of the locked breech system. The recoil rod and spring are still located under the largely open barrel, and the well-sloped butt holds the box magazine containing eight rounds. A very hard type of black nylon-based plastic is used for the butt grips. There is an external hammer and the safety catch engages the sear when in use. Both rear and fore sights are adjustable on most versions of the Model 1951.

Specification

Model 1951
Calibre: 9 mm (0.354 in)
Weight: empty 0.87 kg (1.918 lb)
Lengths: overall 203.2 mm (8 in); barrel 114.2 mm (4.45 in)
Muzzle velocity: 350 m (1,148 ft) per second
Magazine capacity: 8 rounds

ITALY

Beretta 9-mm Model 92 series

During 1976 Beretta placed in production two new families of automatic pistols, the Model 81 which used a blowback operating system and was chambered for calibres such as 7.65 mm (0.301 in), and the much larger **Beretta Model 92** which fires the usual 9-mm (0.354-in) Parabellum cartridge and accordingly uses a short recoil system very like that used on the earlier Model 1951. Since its introduction the Model 92 series has grown into a considerable range of weapons and it also seems certain to be one of Beretta's most successful designs for one of its variants, the **Model 92F**, has been selected as the US armed force's new standard automatic pistol.

Starting from the basic Model 92, the **Model 92 S** has a revised safety catch on the slide rather than below it as on the basic Model 92. This allows the hammer to be lowered onto a loaded chamber with complete safety as the firing pin is taken out of line with the hammer. The **Model 92 SB** is essentially similar to the Model 92 S, but the slide-mounted safety catch can be applied from each side of the slide. The **Model 92 SB-C** is a more compact and handier version of the Model 92 SB.

The Model 92F was a development of the Model 92 SB for the US Army pistol contest, which it won. The main changes from the Model 92 SB are a revised trigger guard outline to suit a two-handed grip (much favoured by the military), an extended magazine base, revised grips and a lanyard ring. The bore is chrome-plated and the exterior is coated in a Teflon-type material to resist wear and act as a non-glare surface.

Following on from the Model 92F there is a **Model 92F Compact** along the same lines as the Model 92 SB-C but using the features of the Model 92F, and also produced along the same lines is the **Model 92 SB-C Type M** which has an eight-round magazine instead of the 15-round magazine used on all the models mentioned above. To cap all these variants there are also two more models based on the Model 92 series but in a smaller calibre. They are the **Model 98** and **Model 99**, both in 7.65-mm calibre and based on the Model 92 SB-C and Model 92 SB-C Type M respectively.

This array of Model 92 pistols should be enough to satisfy just about every military or police requirement likely to arise. The selection of the Model 92F for the American armed forces has already led to a number of orders from other sources, including one from a police force in the UK, and more such orders can be expected. The original Model 92 is now no longer in production, but the Model 92 S still is and all the other variants are available. Apart from the American order various forms of the Model 92 are in service with the Italian armed forces and some of the 'compact' versions are used by various police forces in Italy and elsewhere.

Specification

Model 92F

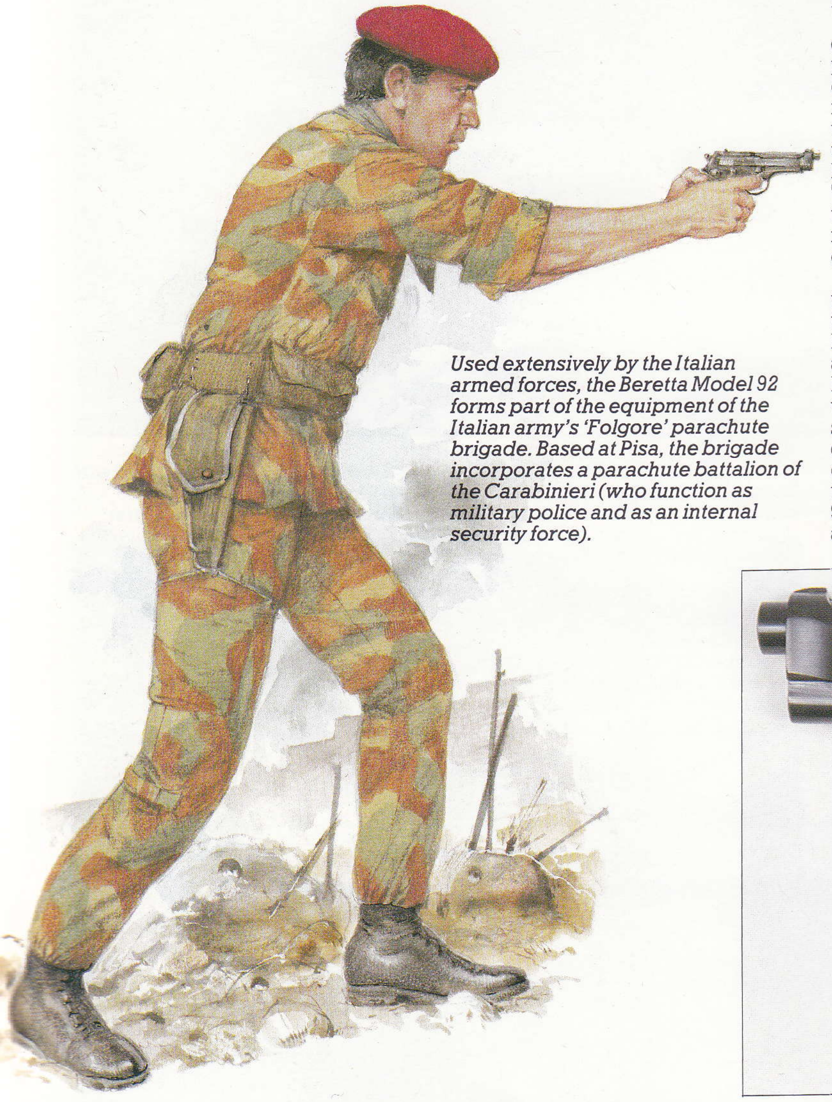
Calibre: 9 mm (0.354 in)

Weight: loaded 1.145 kg (2.524 lb)

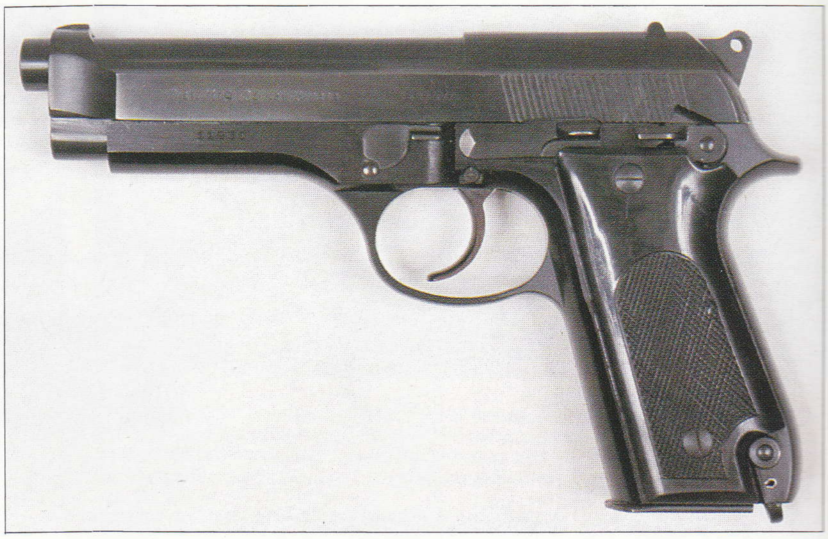
Lengths: overall 217 mm (8.54 in); barrel 125 mm (4.92 in)

Muzzle velocity: about 390 m (1,280 ft) per second

Magazine capacity: 15 rounds



Used extensively by the Italian armed forces, the Beretta Model 92 forms part of the equipment of the Italian army's 'Folgore' parachute brigade. Based at Pisa, the brigade incorporates a parachute battalion of the Carabinieri (who function as military police and as an internal security force).



Introduced in 1976, the Model 92 has proved a logical successor to the Modello 1951. This has a frame-mounted safety catch (later models have the catch on the slide).

ITALY

Beretta 9-mm Model 93R

With the **Beretta Model 93R** one is back in that no-man's land between true machine pistols and selective-fire pistols, for the Model 93R is another modern pistol design intended to fire three-round bursts. Derived from the Beretta Model 92, the Model 93R can be handled and fired as a normal automatic pistol, but when the three-round burst mode is selected the firer has to use both hands to hold the pistol reasonably steady during the burst. To do this Beretta has designed a simple and compact grip system on which the right hand carries out its normal function of operating the trigger and grasping the butt. For the left hand a small forehand grip is folded down from in front of the elongated trigger guard. The left thumb is inserted into the front of the trigger guard and the rest of the fingers grasp the forehand grip. For additional assistance in holding the pistol steady during firing the end of the protruding barrel is equipped with a muzzle brake that also acts as a flash hider.

To provide even more firing stability it is possible to fix a metal folding stock to the butt. When not in use this can be carried in a special holster, and when mounted on the pistol can be extended to two lengths to suit the firer.

Two type of box magazine can be used with the Model 93F, one holding 15 rounds and the other holding 20. The usual 9-mm (0.354-in) Parabellum cartridge is used.

The design detail incorporated into the Model 93R is considerable and one item that will no doubt be seen on future designs is the use of the foregrip in front of the trigger guard. This is so arranged tht the two-handed grip derived from its use is much steadier than the usual two-handed grip with both hands wrapped around what is often a bulky pistol butt. Using this foregrip it is quite possible to provide reasonably accurate burst fire as both hands are 'spaced' to produce a longer holding base and yet are close enough to prevent either hand wavering. It is possible to fire bursts without using the metal extending stock, but for really accurate fire (even with single shots) its use is recommended.

As yet the Model 93R is not on the open market and is still under development. One problem seems to be that the three-round burst mechanism is rather complicated and at present requires the services of a trained technician to carry out maintenance and repairs. Once this difficulty has been ironed out the Model 93R will no doubt attract a great deal of attention from many sources. It would certainly make a formidable close-quarter self-defence weapon.

Specification

Model 93R

Calibre: 9 mm (0.354 in)

Weights: loaded with 15-round magazine 1.12 kg (2.47 lb); loaded with 20-round magazine 1.17 kg (2.58 lb)

Lengths: pistol 240 mm (9.45 in); barrel 156 mm (6.14 in)

Muzzle velocity: 375 m (1,230 ft) per second

Magazine capacity: 15 or 29 rounds

Replacing a Legend

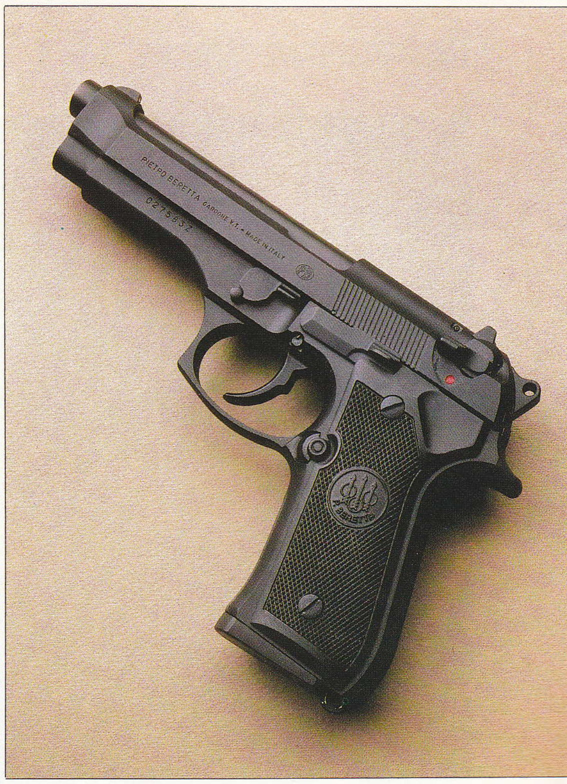
For many years, the United States Army stood aloof from the trend that has seen the 9-mm Parabellum round adopted as an almost universal military cartridge. Recently, however, the unthinkable has happened; a successor to the legendary Colt 0.45 has been chosen, it does not use the 0.45-in (11.43-mm) Colt cartridge, and it is not even American!

The Americans have always been highly individual when it comes to hand guns. Not only do they have a clause in their constitution that (when taken out of context) allows them to carry firearms, but they have devoted a great deal of their national technological expertise over the years to designing and developing some superlative pistols, many of which are still regarded as world leaders. This has been particularly true of the pistol that has been in US service for well over 75 years, the 0.45-in (11.43-mm) Colt M1911 and M1911A1 automatic.

This venerable pistol was developed during the first decade of this century to provide American troops with a weapon that would knock over any attacker at short range, the unfortunate but fanatical Moro tribesmen from the Philippines being the specified targets. The Colt M1911 with its heavy bullet was the outcome, and after World War I slight changes were introduced to produce the M1911A1. Many of the original M1911s remain in use to this day. Thereafter, despite technological innovations introduced elsewhere the M1911 has been the standard service pistol of the American armed forces, including the US Coast Guard, and it has been produced in hundreds of thousands.

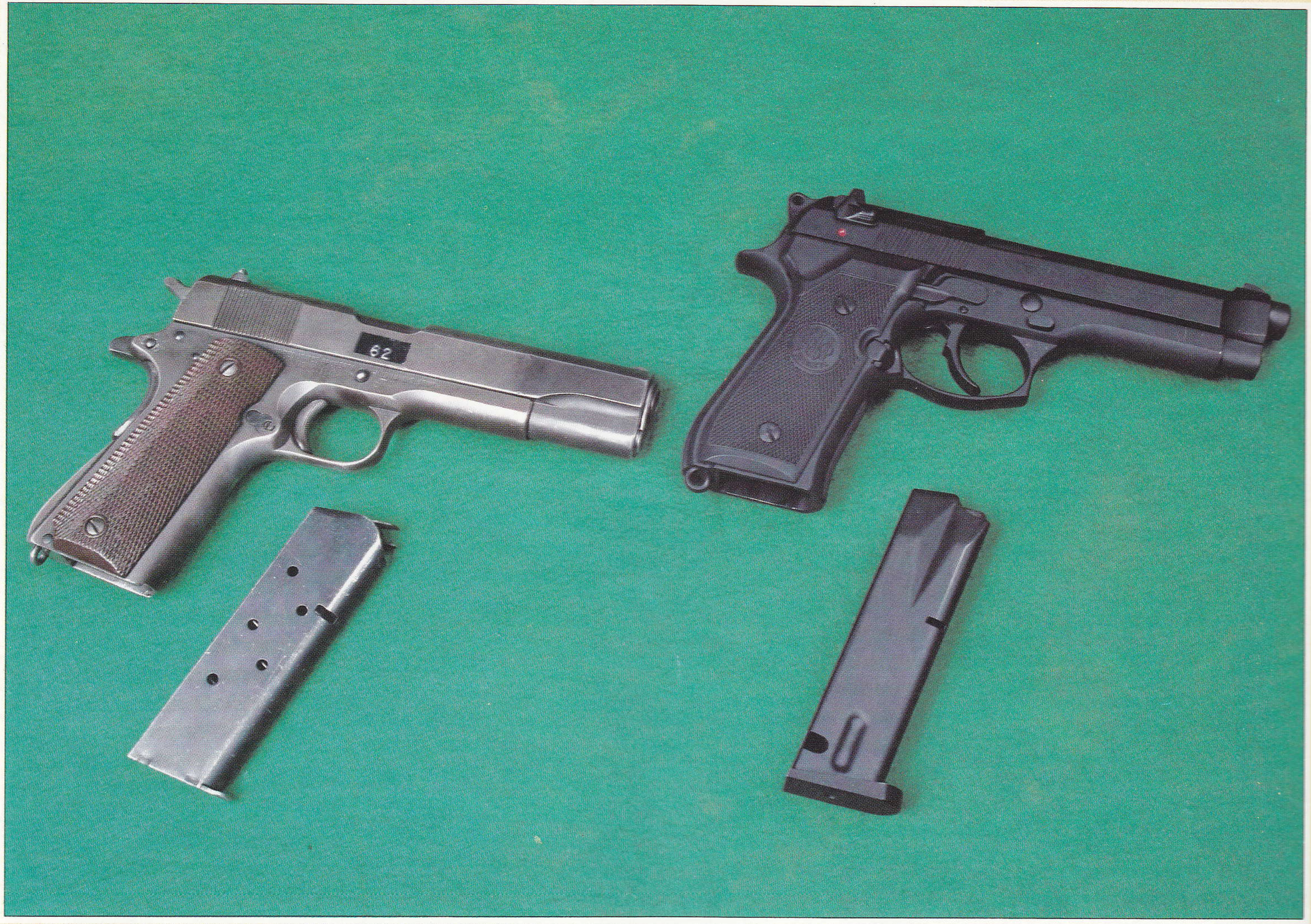
The M1911 has also made a considerable impression on many generations of American servicemen. To them it has come almost to epitomize American military service, and so attached to the M1911 have many serving and ex-serving officers and men become that the mere idea of replacing the pistol was unthinkable. Even when the rest of the military world adopted the 9-mm (0.354-in) Parabellum cartridge as an almost universal round the Americans looked away and retained their M1911 with its big and powerful round.

To many observers the attachment of the Americans to the M1911 was understandable but wrong, especially when NATO standardization of calibres and weapons became one of the priorities of the post-war alliance. At a time when all the NATO nations except the United States were adopting the 9-mm cartridge the Americans stuck to their non-standard 0.45-in round. There were other questions being asked as well. One was that training with the large and powerful M1911 took much longer than with the equivalent 9-mm pistols, for the 0.45-in cartridge in some ways heralded the objections to the later Magnum rounds in that it produced a violent recoil and was so noisy that many recruits were quite frankly terrified of it and thus took much longer to train. The other objection was that by the 1970s the M1911 was outdated as a design. It



The Beretta Model 92 was thoroughly adapted to meet US requirements. The safety catch has a lever on both sides of the slide, to allow left- or right-handed firing, and the magazine release catch can be fitted facing either left or right immediately beneath the trigger guard.

The Beretta is much less of a handful to fire than the venerable Colt, and the smaller round allows a much larger magazine capacity.



Although the Colt and Beretta are of similar size, as seen above, the difference between a gun introduced in 1911 and one developed in 1976 becomes evident when performance and durability are tested under extreme conditions.

has none of the safety features introduced into the modern pistols and it can be used only by right-handed firers. Then there was the matter of the magazine capacity, for the M1911 holds only seven of the bulky 0.45-in rounds while most 9-mm pistols can carry far more (often twice as many).

What finally decided the US military authorities to seek a new pistol was none of these technicalities but a practicality, for many of the old M1911s were worn out. Many had been virtually rebuilt from spare parts several times over during their service lives, and the time was well past for many to be rebuilt yet again. The M1911 has not been manufactured for many years, and although numerous firms in the USA and elsewhere can make a good living churning out M1911 spares and conversions, a point was being reached where the pistols were simply too worn to be renovated.

New selection

When the decision to select a new pistol was announced during the early 1980s a storm of protest rose from the assembled ranks of the armed forces and veterans. All manner of alternatives were proposed from putting the M1911 back into production to converting existing pistols to 9-mm calibre. It did not take long for the authorities to overcome those arguments, but having said that it immediately became apparent that the Americans' once-overwhelming lead in handgun design had been lost to the Europeans. Since World War II many European small-arms manufacturers have devoted a great deal of effort to developing modern materials for the design of pistols well in advance of anything the Americans had been making. Employing high-grade steels and light metals, and introducing hard plastics to functions where once they had been unthinkable, the Europeans had been able to manufacture pistols that seemed ahead of their time by comparison with American contemporaries.

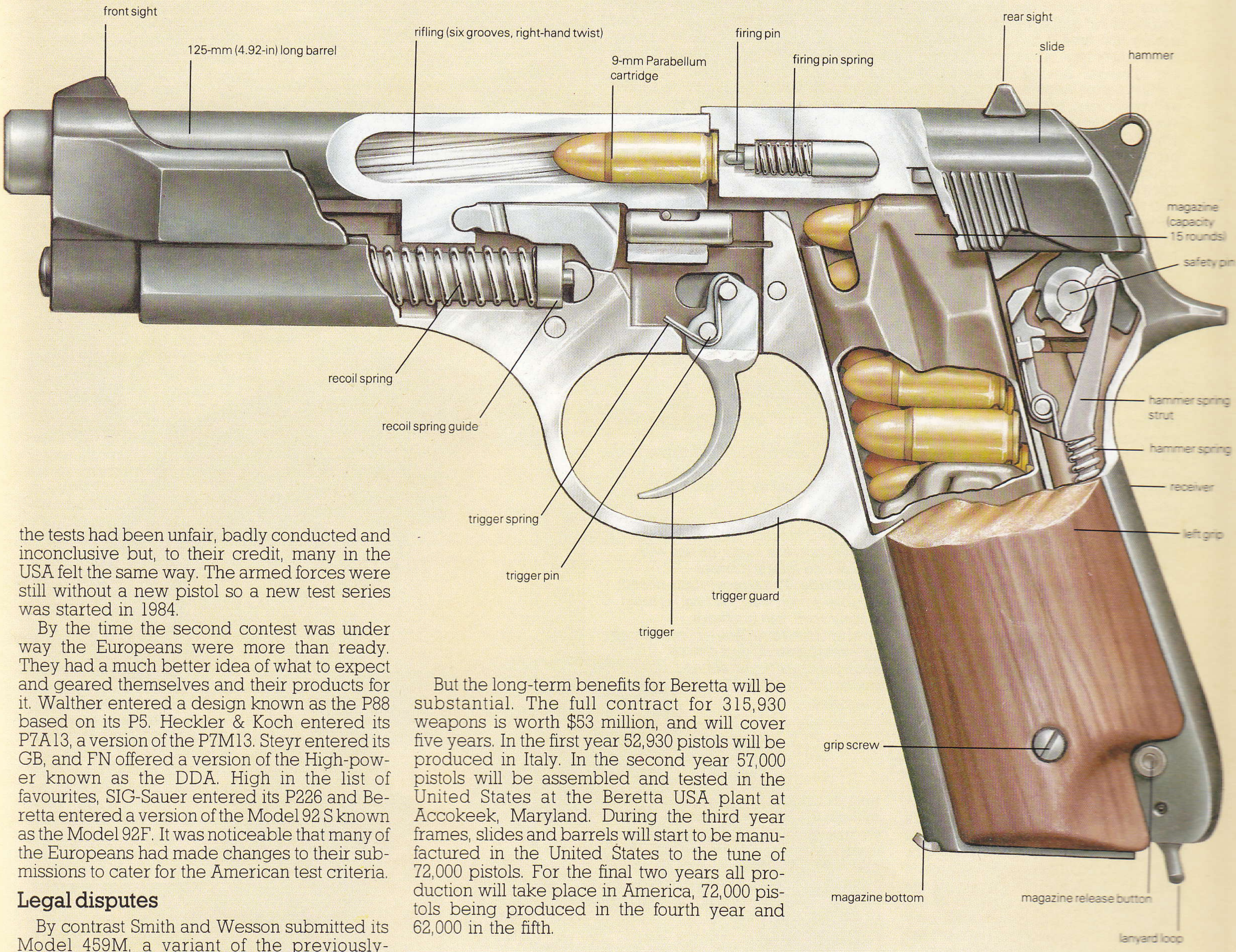
Sensing large contracts the Europeans rushed to enter the American selection contest for what was tentatively named the XM9 programme (although that designation now appears to have lapsed). From the USA both Smith and Wesson and Colt put forward designs they felt sure would win. Smith and Wesson were particularly confident for their entry, the Model 469, had already been selected by the US Air Force. Colt entered a model known as the SSP.

Unfortunately for all the entrants, none of the pistols offered was selected as all failed to satisfy at least one of the criteria it was thought necessary they should meet. The paper requirements were fairly straightforward and although some were slightly changed at one stage or another, they came down to the following: the weight of each pistol was not to exceed 1.3 kg (2.866 lb) fully loaded; length was not to exceed 221 mm (8.3 in); height with magazine inserted was not to exceed 147 mm (5.787 in); the barrel had to have a minimum length of 102 mm (4 in); the magazine had to hold at least 10 rounds, the magazine baseplate being removable for cleaning and maintenance; the rear sight was to be fixed but with some capability for fine adjustment; after the last round had been fired the slide had to remain open, and a manual slide stop feature had to be incorporated; ambidextrous operation would be an advantage; and 9-mm Parabellum ammunition was to be used.

What the entrants were not told was what form the tests would take. The usual firing and stripping tests were indeed carried out, but a number of others were also introduced. One of these involved clamping the pistol in a machine that then vibrated at a high rate. Any parts that came loose or fell off were deemed faults and any protest was met with the answer that the old M1911 could pass this test: the fact that the M1911 had none of the ambidextrous operating levers and extra safeties was simply ignored. Ammunition stoppages were also regarded as faults.

The results of this first series of tests left many of the Europeans with the impression that the well-known American NIH (Not Invented Here) syndrome had been invoked: they felt

Beretta Model 92


front sight
125-mm (4.92-in) long barrel
rifling (six grooves, right-hand twist)
9-mm Parabellum cartridge
firing pin
firing pin spring
rear sight
slide
hammer
magazine (capacity 15 rounds)
safety pin
hammer spring strut
hammer spring
receiver
left grip
recoil spring
recoil spring guide
trigger spring
trigger pin
trigger
trigger guard
grip screw
magazine bottom
magazine release button
lanyard loop

the tests had been unfair, badly conducted and inconclusive but, to their credit, many in the USA felt the same way. The armed forces were still without a new pistol so a new test series was started in 1984.

By the time the second contest was under way the Europeans were more than ready. They had a much better idea of what to expect and geared themselves and their products for it. Walther entered a design known as the P88 based on its P5. Heckler & Koch entered its P7A13, a version of the P7M13. Steyr entered its GB, and FN offered a version of the High-power known as the DDA. High in the list of favourites, SIG-Sauer entered its P226 and Beretta entered a version of the Model 92 S known as the Model 92F. It was noticeable that many of the Europeans had made changes to their submissions to cater for the American test criteria.

Legal disputes

By contrast Smith and Wesson submitted its Model 459M, a variant of the previously-favoured Model 469, while Colt once more put forward its SSA; a rumoured entry from Sturm, Ruger did not materialize. To everyone's surprise the two American entries were the first to be eliminated, leading almost immediately to legal action by Smith and Wesson. For a while the SIG-Sauer P226 seemed to be the clear favourite, but when the final result was announced in January 1985 it emerged that Beretta had won with the Model 92F.

Once again legal actions followed but got nowhere. All sorts of claims as to the conduct and findings of the tests were aired, and at the time of writing all legal submissions have been unsuccessful, though it is doubtful if the last of them has been heard. It seems that the SIG-Sauer P226 was indeed in the final running, but in the end costs won the day and one authority has claimed that all that the directors of Beretta will get out of the American contract is enough for a good lunch.

But the long-term benefits for Beretta will be substantial. The full contract for 315,930 weapons is worth $53 million, and will cover five years. In the first year 52,930 pistols will be produced in Italy. In the second year 57,000 pistols will be assembled and tested in the United States at the Beretta USA plant at Accokeek, Maryland. During the third year frames, slides and barrels will start to be manufactured in the United States to the tune of 72,000 pistols. For the final two years all production will take place in America, 72,000 pistols being produced in the fourth year and 62,000 in the fifth.

A gun cannot serve for three-quarters of a century without arousing much devotion and imitation. In spite of being replaced in US service, the Colt has inspired weapons such as the Spanish-built Star automatic pistol.

USA

Smith and Wesson revolvers

Smith and Wesson has been making revolvers for well over 100 years, and during that time it has produced just about every type of revolver it is possible to make. Among the company's prolific output have been many military revolvers, but today Smith and Wesson do not make any revolver specifically for military use. This does not prevent many armed forces from using Smith and Wesson revolvers for many roles, but from the outset it has to be said that it is unlikely that any armed forces are likely to use Smith and Wesson revolvers in a front-line capacity. Instead they are to be found with military and security police and other such military agencies.

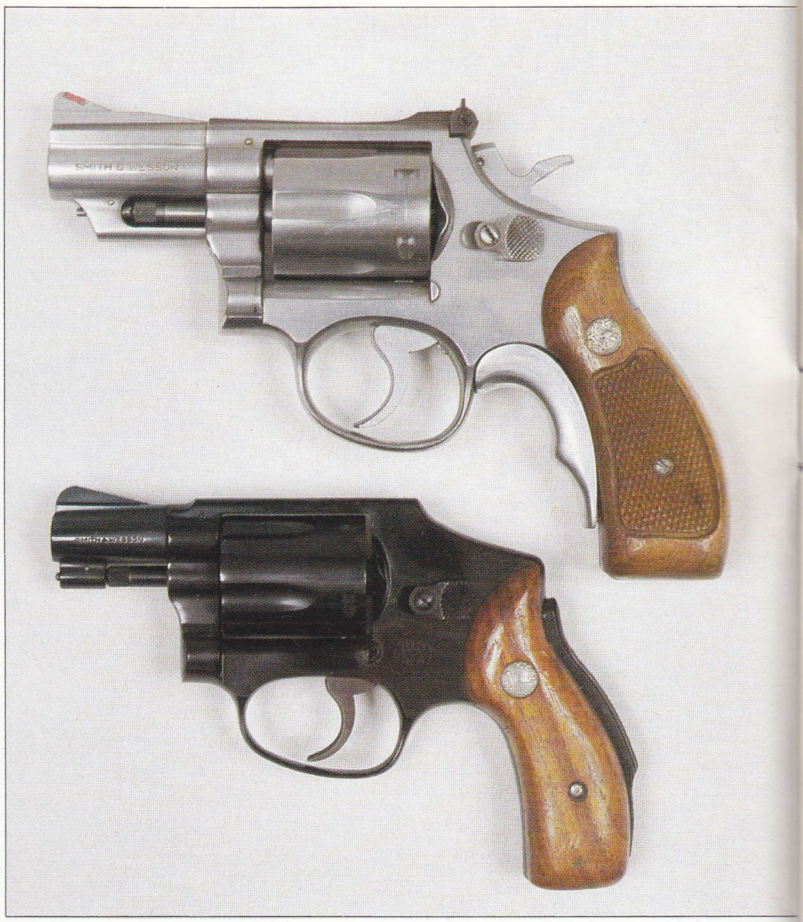
Top of the current list come the Magnums. For reasons explained elsewhere in this study such weapons are usually confined to special purpose units, one of them being very special for it is one of the most powerful revolvers available today. This is the **No. 29** 0.44-in Magnum (10.92-mm) which was first introduced in 1955. The No. 29 is too much of a handful for most users since its recoil is prodigious, so the **No. 57** was introduced in 1964 to use the less potent 0.41-in Magnum (10.41-mm). This has the same overall dimensions as the No. 29, is rather more manageable yet still retains its massive striking power.

But to most observers of the pistol scene Smith and Wesson means 0.38-in (9-mm) revolvers. There are many of these still on the Smith and Wesson marketing lists, a typical example being the **No. 38 Bodyguard**. This small snub-nosed revolver has a shrouded hammer to allow it to be concealed on the person without too much danger, but a stud over the hidden hammer allows the pistol to be cocked for single-action shooting. The cylinder holds only five rounds, and the No. 38 uses an aluminium body; the otherwise similar No. 49 uses an all-steel body.

Pistols such as the No. 38 and No. 49 are not likely to be used in front-line combat, but they can still be found on the inventories of many armed forces. Pilots carry them (or pistols very similar to them) on missions over enemy territory, and the weapons are often issued to military personnel operating in plain clothes in areas where the local population is hostile to their presence. It seems that there will always be a need for weapons such as the small Smith and Wesson revolvers.

Specification

No. 38 Bodyguard
Calibre: 0.38 in (9 mm)
Weight: 0.411 kg (0.9 lb)
Lengths: overall 165 mm (6.5 in); barrel 51 mm (2 in)
Muzzle velocity: 260 m (853 ft) per second
Chamber capacity: 5 rounds



Smith and Wesson 0.38-in (9-mm) revolvers are in common use with police and military forces worldwide. The typical snub-nosed, double-action weapon (top) is most widely seen, but the more specialized No. 38 Bodyguard has no external hammer and can be brought rapidly into action from a pocket or holster without danger of snagging.

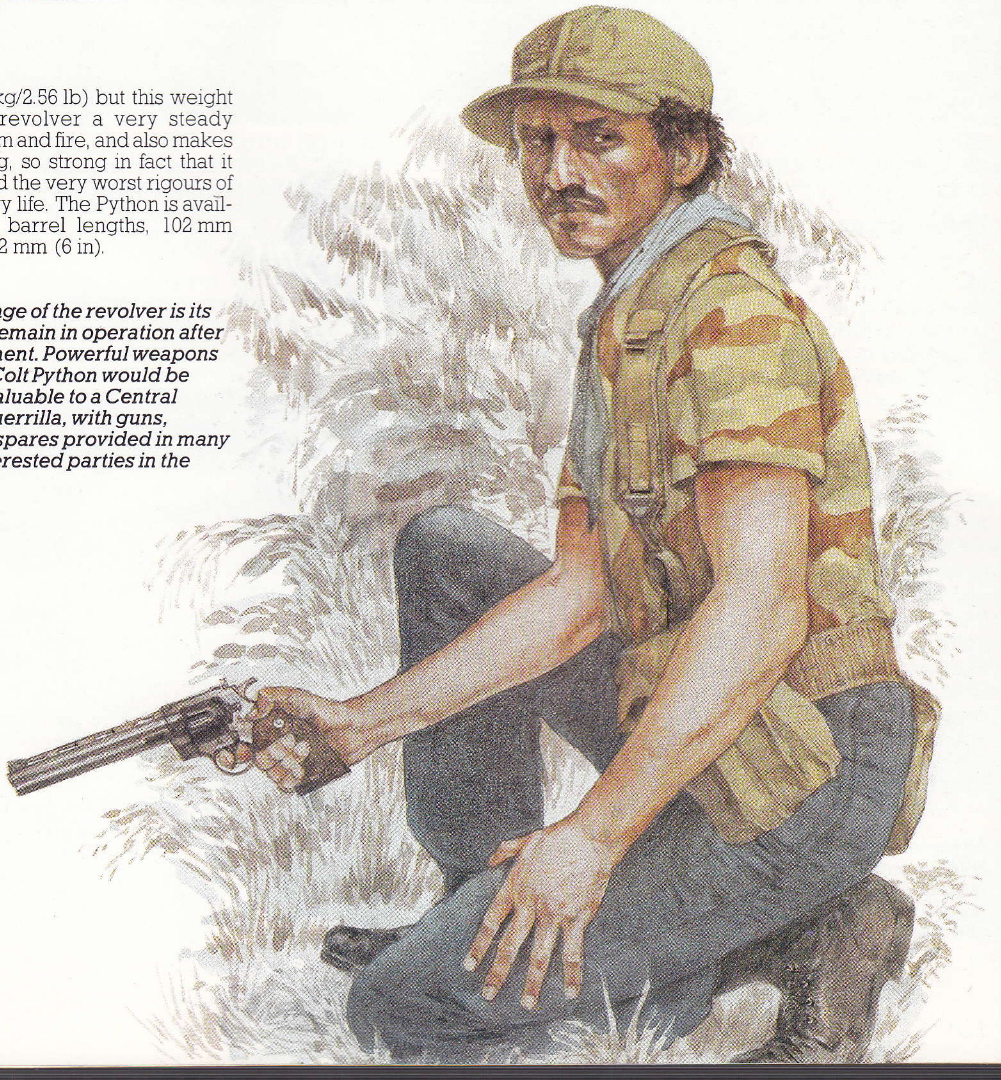
USA

Colt revolvers

To many the very name Colt means revolvers since it was the Colt's Firearms Company that produced the first successful commercial revolvers, including the famous single-action Colts such as the 'Peacemaker', the gun enshrined in the legends of the Old West. Gradually Colt moved away from producing revolvers (to leave the field open to others, as it was to learn to its cost) and concentrated on automatics. But Colt still continued to make some revolver designs apart from its various well-known and attractive commemorative models.

The modern Colt military revolvers are now all double-action designs, and although most models are produced with police use in mind many are still used by various military agencies in the USA and elsewhere. Many are used by military police units who can obtain the special training needed to handle the powerful Magnum rounds now in use. Thus although many present-day Colt revolvers have names such as **Trooper, Lawman, Police Positive** and so on, they may well be used in military hands.

One particular Colt revolver that comes into this category is the **Python**. First introduced in 1955, this weapon has a shrouded barrel with a distinctive appearance and is chambered for one cartridge only, the 0.357-in Magnum (9-mm). The Python is a very powerful weapon, but to absorb some of the effects of the heavy cartridge load it has to be constructed in an equally heavy fashion. It is thus very heavy (1.16 kg/2.56 lb) but this weight makes the revolver a very steady weapon to aim and fire, and also makes it very strong, so strong in fact that it can withstand the very worst rigours of a long military life. The Python is available in two barrel lengths, 102 mm (4 in) and 152 mm (6 in).



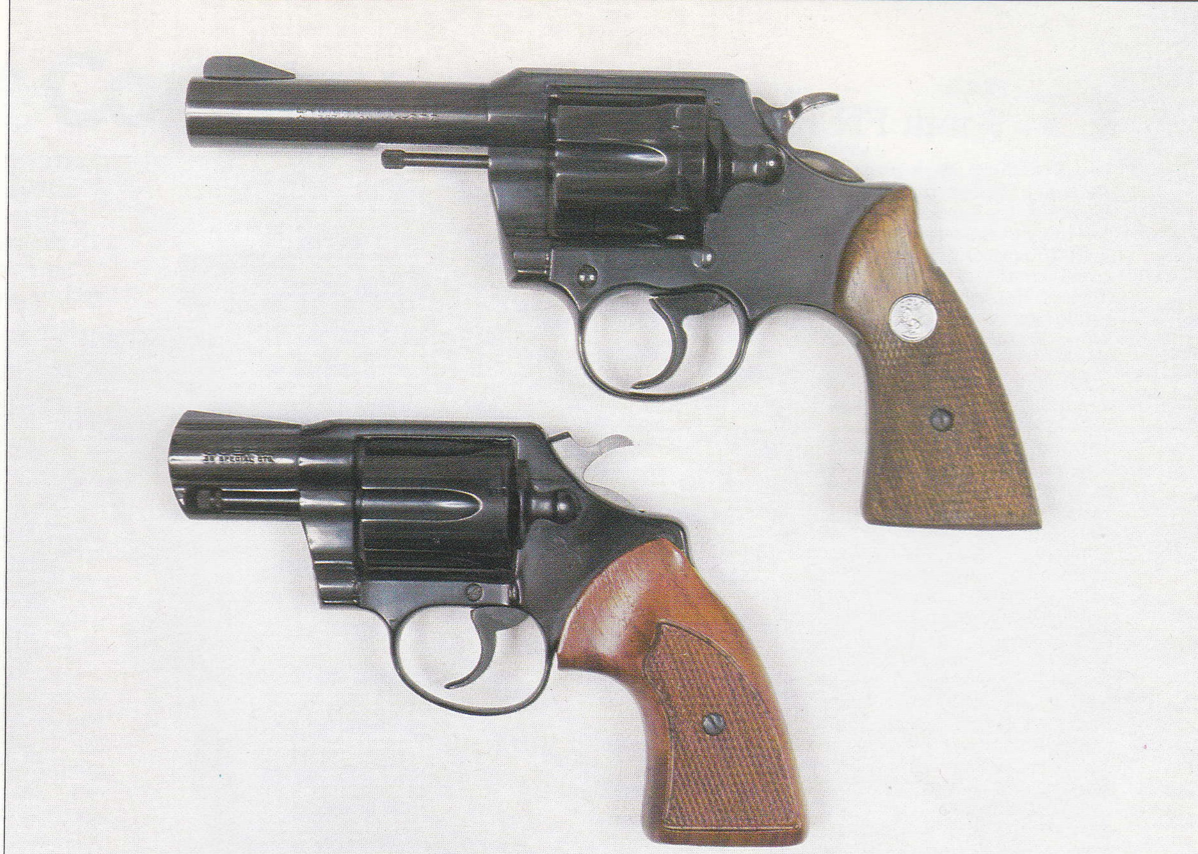
One advantage of the revolver is its capacity to remain in operation after harsh treatment. Powerful weapons such as the Colt Python would be extremely valuable to a Central American guerrilla, with guns, rounds and spares provided in many cases by interested parties in the USA.

Colt revolvers (continued)

Another Colt revolver is the Trooper. Although no longer available, the Trooper first appeared in 1953, again in a variety of barrel lengths and in various calibres, most of them tending to the heavy side, and with many ending up in military use, although mostly in security rather than combat roles. The Trooper has now been replaced by the **Lawman Mark III**, which is produced only in 0.357-in Magnum and with barrels as short as 51 mm (2 in). Again, many of these are in military use all over the world.

Specification

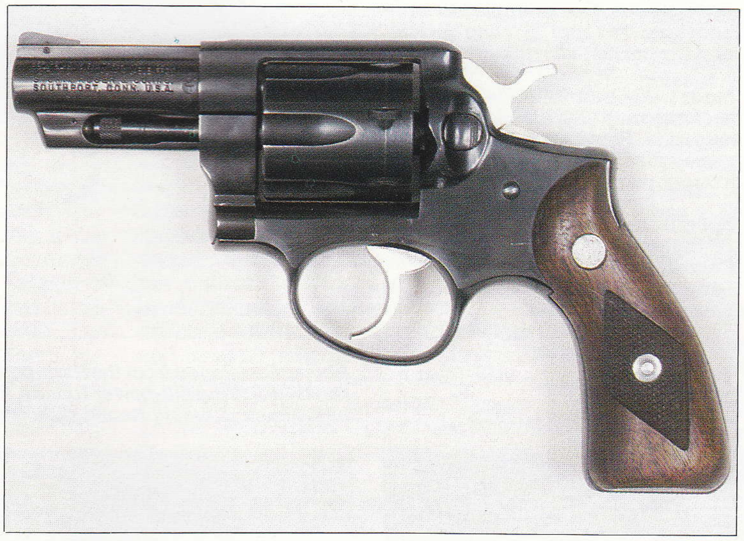
Lawman Mark III
Calibre: 0.357-in Magnum (9-mm)
Weight: 1.022 kg (2.253 lb)
Lengths: overall 235 mm (9.25 in); barrel 2 or 4 in (51 or 102 mm)
Muzzle velocity: about 436 m (1,430 ft) per second
Chamber capacity: 6 rounds



Colt revolvers are available in a number of calibres, with the .357 Magnum round (actually of 9-mm calibre) being used in the powerful Lawman Mk III. The Colt Cobra (bottom) is similar to the Python, but is chambered for the 0.38 Special round instead of the Magnum.

USA

Ruger revolvers



Above: Ruger's Speed-Six is known to the US Army as the GS-32N. It is made in two versions: one for 0.357 Magnum/0.38 Special and one for 9-mm Parabellum. The 9-mm is rimless so three round half-moon clips are used to ensure ejection.

The armaments concern of Sturm, Ruger and Company Inc. of Southport, Connecticut, produced its first pistol, an automatic, in 1949 and thereafter has never looked back. The company owe a great deal of its success to the astute observation that there was still a large market for single-action revolvers in the USA but that Colt, the obvious choice for such a weapon, was no longer interested in making them. Sturm, Ruger and Co. decided to fill the gap and have been making revolvers (among other types of weapon) ever since.

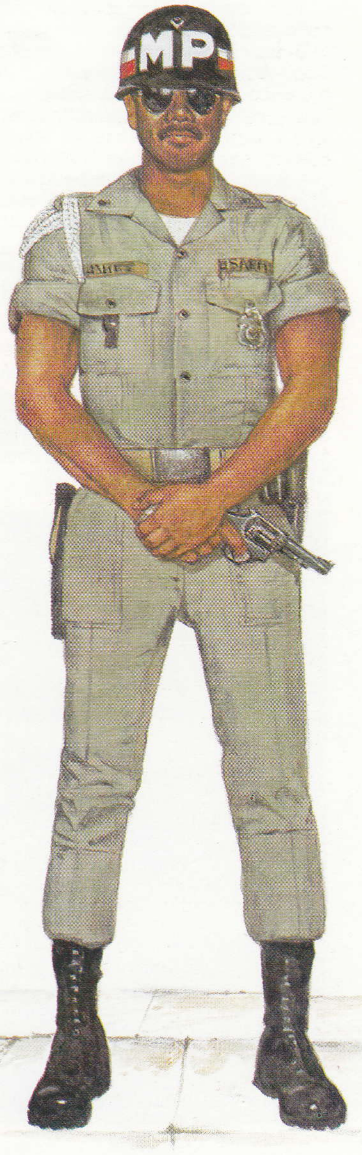
Before simply copying the old Colt designs, William B. Ruger decided to examine the fundamental design aspects of the revolver in all its forms and soon came up with what was a very modern version of a weapon that had been around for nearly a century. New types of steel and other materials (especially springs) were introduced and the manufacture was gradually developed into a modular system where components could be added or subtracted to form any particular model. The point has now been reached where Sturm, Ruger and Co. produces a very wide range of modern revolvers to meet just about any requirement, military or civil.

Ruger revolvers are today produced in various barrel lengths and in varying finishes, including stainless steel. The revolvers are also available in a wide range of calibres from 0.38-in Special (9-mm) up to the Magnums, although the Magnums are not usually selected for ordinary military use. Typical of the service revolvers currently on offer is the **Service-Six** chambered for either the 0.38 Special or 0.357-in Magnum (again 9-mm) cartridges. The Service-Six can be fitted with either a 70-mm (2.75-in) or 102-mm (4-in) barrel, while the generally similar **Security-Six**, intended for police use, can have even longer barrels. The trigger actions of both are single- and double-action. Some Ruger revolvers fire rimless 9-mm Parabellum ammunition, so for loading these rounds special 'half moon' clips, each holding three rounds, have to be used.

One particular Ruger revolver caused quite a stir when it was first introduced in 1955. This was the famous **Ruger Blackhawk** that could fire the very powerful 0.44-in Magnum (10.92-mm) round, making the Blackhawk one of the most powerful revolvers obtainable. This was too much of a handful for most users, so the Blackhawk range has now been extended to include other less potent cartridges and it is still in great demand by many pistol enthusiasts.

Specification

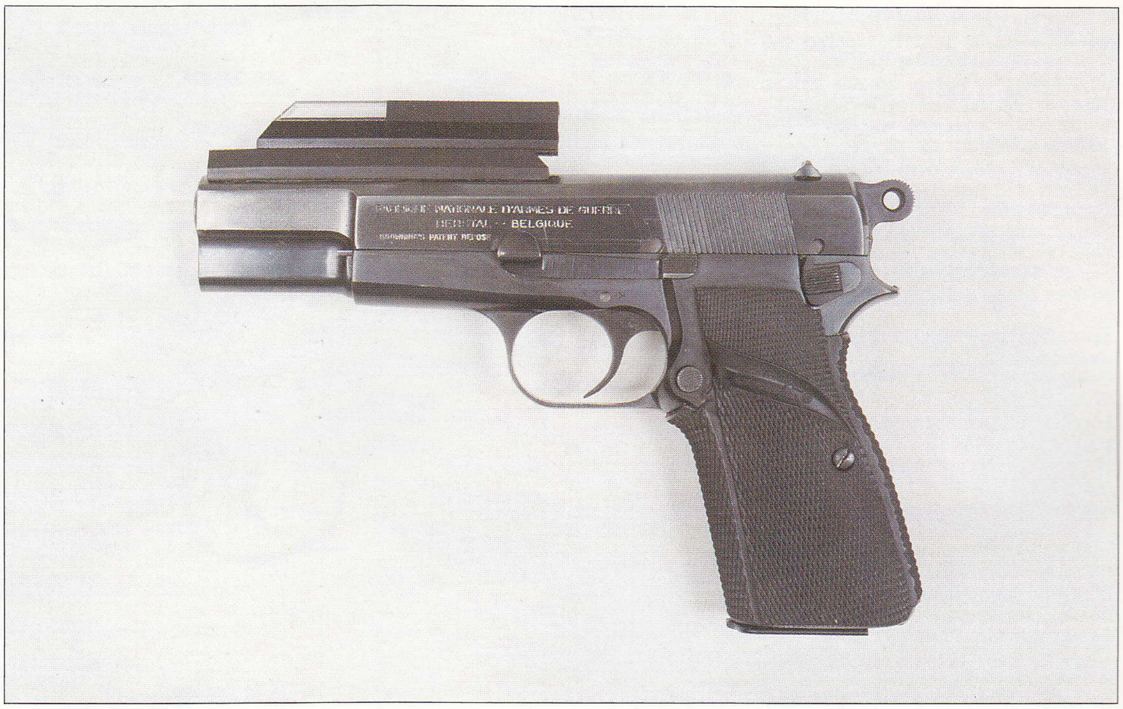
0.38-in Service-Six
Calibre: 0.38-in Special (9 mm)
Weight: 0.935 kg (2.06 lb)
Lengths: overall 235 mm (9.25 in); barrel 102 mm (4 in)
Muzzle velocity: 260 m (853 ft) per second
Chamber capacity: 6 rounds



Most Ruger pistols in US military use are in the hands of military police or security forces. These roles require familiarity with and training in handling powerful handguns so that the capability of Magnum or Special calibre pistols is not wasted.

BELGIUM

9-mm FN High-power



Above: Many of the great J.M. Browning's designs have proven exceptionally long-lived, with the Browning High-power pistol being no exception. This example has an advanced 'red spot' sighting device, and custom non-slip grips.

The **Browning High-power** pistols were first designed in 1925 by J.M. Browning, the famous weapons designer, but they are still in production and service to this day. The main producer is still the Belgian Fabrique Nationale (FN) of Herstal, although spares are being made in Canada following World War II production in that country.

FN now makes several variants of the High-power in addition to the basic military version. All use the same basic Browning short recoil method of operation, and can easily be recognized as coming from the same stable. One variant is the **High-power Mk 2**, which can be regarded as an updated version of the original with more modern finish and grip shape but still unchanged inside. There are also three versions of the standard military model.

The basic military model is now known to FN as the **BDA-9S**. The smaller **BDA-9M** uses the same frame as the BDA-9S but it is combined with a shorter slide and barrel, also used on the compact version of the family, the **BDA-9C**. The BDA-9C is a very small pistol for its calibre, and has a much shortened butt holding only seven rounds instead of the usual 14 of the other models. It is intended to be a 'pocket pistol' for use by plain clothes police units and for specialist roles such as VIP protection.

In recent years other versions of the High-power have appeared, some with specially-lightened slides to reduce weight and some with components made from light alloys, again to reduce weight. All these versions fire the 9-mm (0.354-in) Parabellum cartridge and all have found ready buyers, even in a world market sated with more modern pistol designs.

One factor that has consistently sold the FN High-power pistols has been the series' extreme robustness. The pistols are capable of accepting very hard use and will fire under the most adverse conditions, always providing that (as with any weapon) they are properly maintained and are loaded with decent ammunition. The High-power can be a bit awkward to handle as on all but the BDA-9C Compact model the butt is rather wide to accommodate the double-stack box magazine. However, this has not prevented the High-power being used as a target pistol by some enthusiasts.

Specification

FN High-power

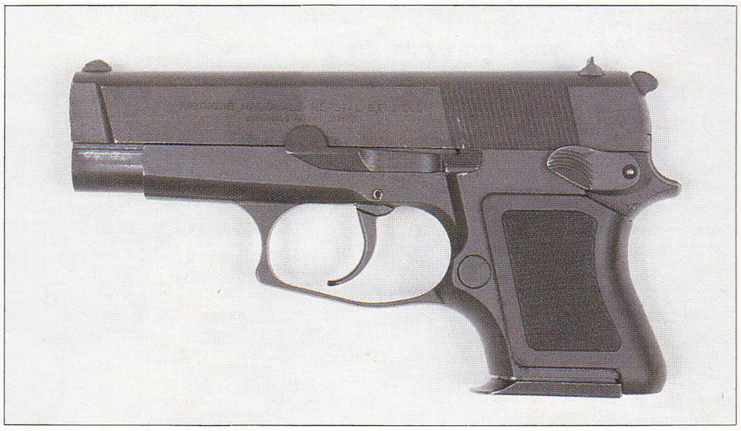
Calibre: 9 mm (0.354 in)

Lengths: overall 200 mm (7.874 in); barrel 118 mm (4.645 in)

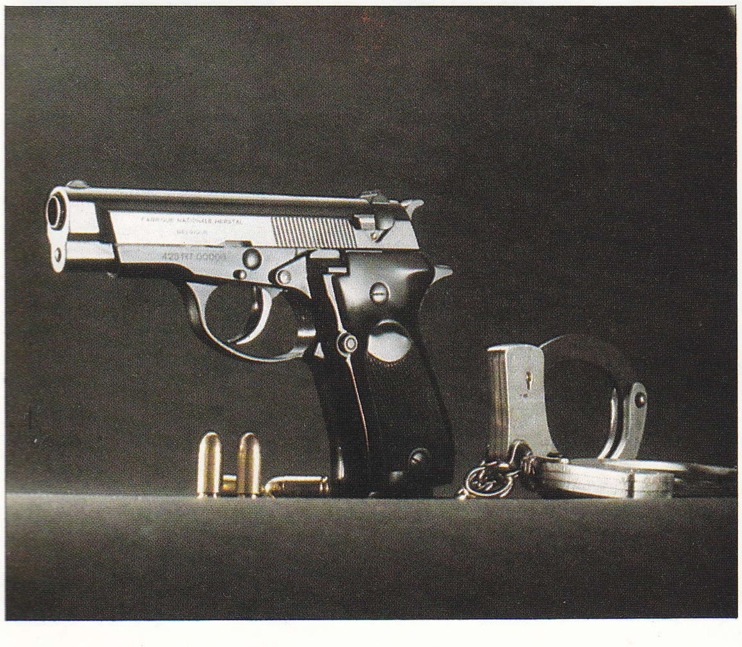
Weights: empty 0.882 kg (1.944 lb); loaded 1.04 kg (2.29 lb)

Muzzle velocity: 350 m (1,148 ft) per second

Magazine capacity: 14 rounds



Above: Developed from the High-power to provide a genuine pocket pistol capable of firing full-power rounds, the Browning Compact has a very short butt, although the shortened slide is less obvious.

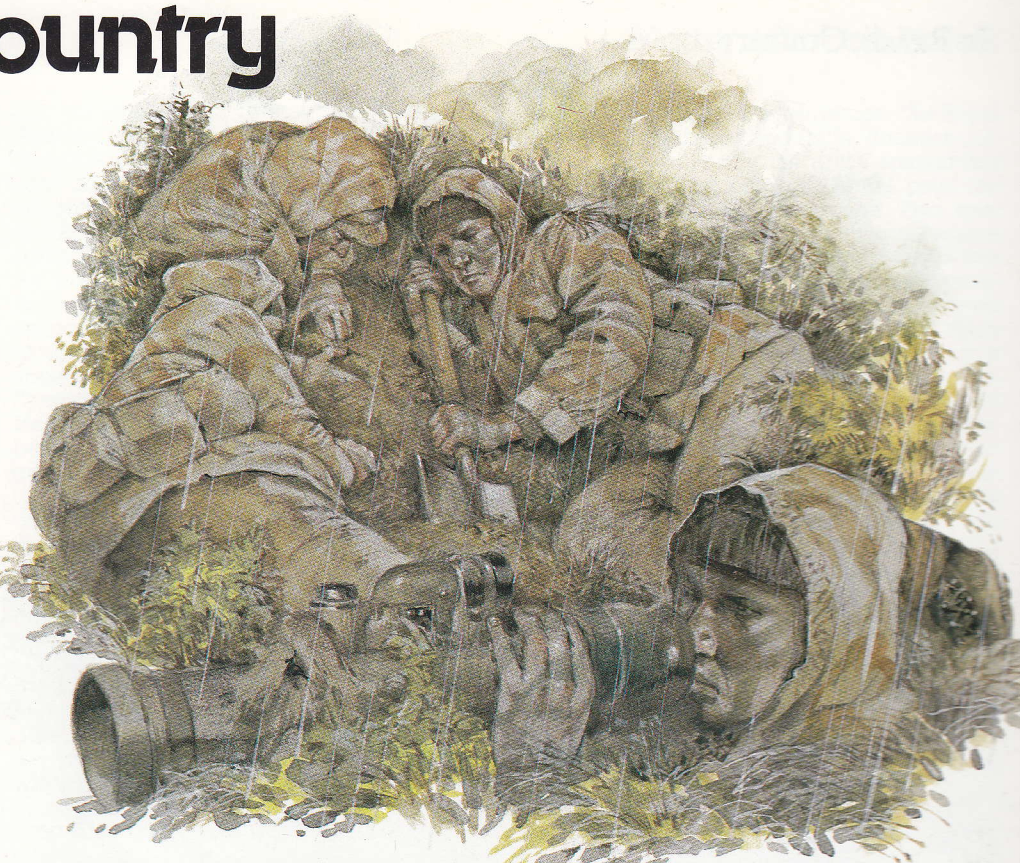


Left: Latest development from FN is the 7.65-mm or 9-mm short DA 140. Years of experience with the High-power and a collaboration with Beretta of Italy have produced a light, effective pistol.

Above: The 'Grande Puissance' remains in production after 45 years, and is in use in 55 countries. It was the first of the large-capacity pistols, and remains one of the most popular.

In Bandit Country

Pistols may have ceased to be important weapons on the conventional battlefield but they remain in front-line service in low intensity operations. In the war in Northern Ireland they are a favourite terrorist weapon and are widely used by the security forces.



Counter-revolutionary warfare has one thing in common with ordinary soldiering – you have to do an awful lot of nothing for a great deal of the time. Unlike ordinary soldiering, however, an observation post must be ready for action in an instant.

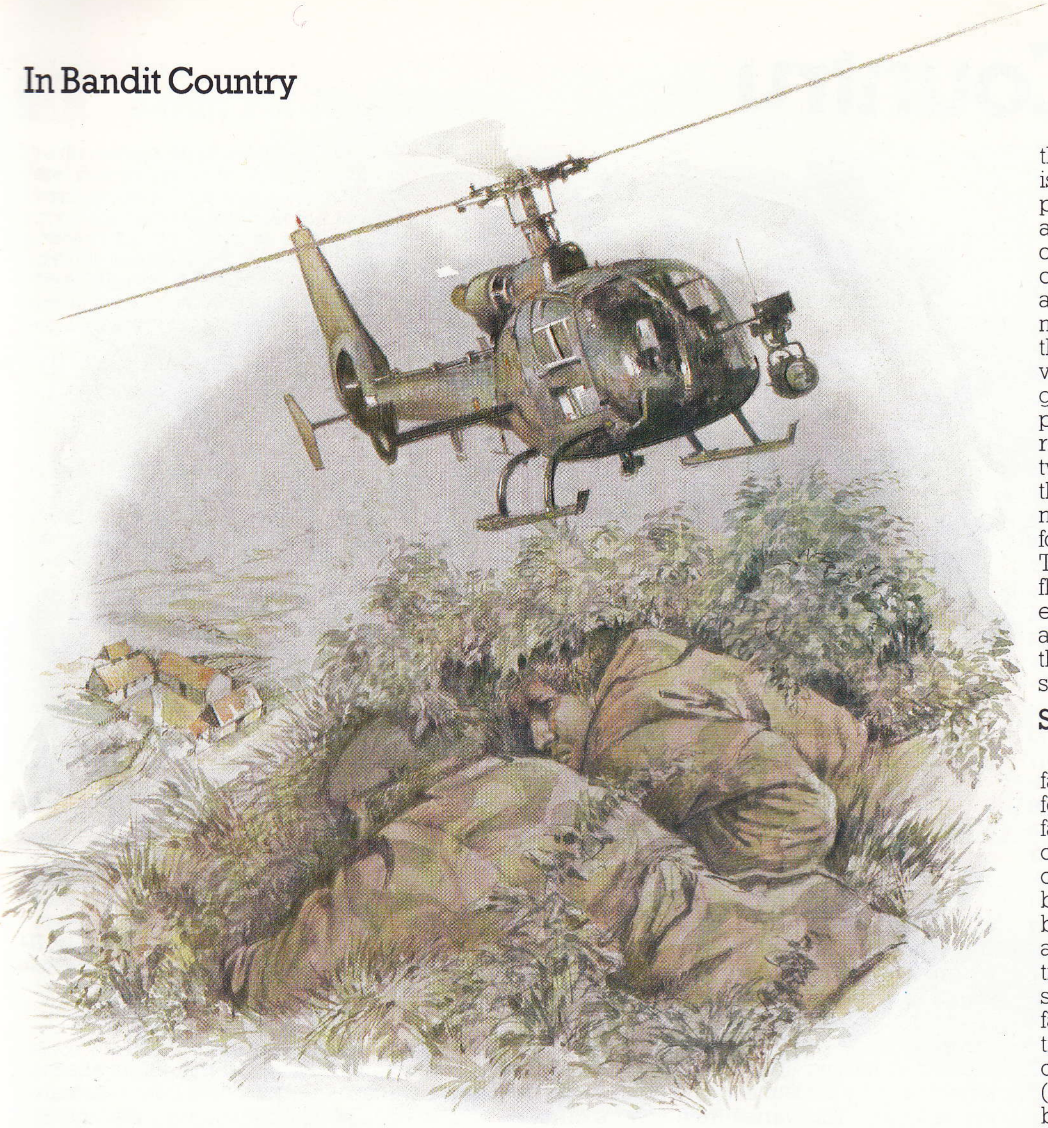
Pistols have survived as military weapons because they are the most easily concealed of all firearms. Both the terrorist and his enemies have need of hidden firepower, and as many modern semi-automatics are capable of carrying up to 18 rounds the handgun seems to have an assured future. It is true that the new generation of small sub-machine guns offer much greater firepower and yet are almost as easily carried. It is also arguable that if you envisage having to fire more than a dozen or so rounds then a sub-machine gun is possibly a more appropriate weapon. However, SMGs are not without disadvantages of their own. They purchase their firepower only by profligate ammunition expenditure which may not suit a cost-conscious terrorist movement, and accurate shooting with an SMG is notoriouly difficult to achieve without long practice. Consequently, low-intensity operations provide considerable scope for the pistol. In Northern Ireland, pistols are carried by the security forces, terrorists of all persuasions, and by public figures whose safety is threatened by their very prominence. They are even carried by units whose presence in Ulster is an added source of political friction.

There was a time when the Ministry of Defence denied that the SAS was operating in Northern Ireland. Now at least it admits the fact, but remains coy about details. This is rather perverse since the MoD knows what the SAS are doing, the SAS knows and the IRA and its friends know . . . and so does every major intelligence service in the world. Put this reticence down to typical British modesty if you like, but the true reason is that the government has always been reticent about the action of 'special forces', and their use in Ulster is regarded as an especially sensitive issue. The very use of the armed forces in Northern Ireland has led to continual controversy and all the army has been able, or indeed, allowed to do is fight a holding action. This it has done magnificently with a degree of expertise unmatched by any other armed force in the world. Casualties on both sides may appear tragically severe, but without military intervention they would undoubtedly have been far higher.

The Irish Republican Army has evolved into an extreme left-wing terrorist organization dedicated to turning all Ireland into a 'workers' democracy' by the familiar policy of revolutionary violence. This varies from attacks on the security forces proper to simple but indiscriminate slaughter. The IRA is a disparate organization led by a small cadre of fanatics. It ensures that violence never remains far from the political surface and rigorously exploits sentimental and genuine social grievance to maintain a steady flow of recruits. Both the IRA and its main splinter group, the Irish National Liberation Army, enjoy the support of large sections of the population. Experience in Kenya, Malaya and Cyprus demonstrated that the only long-term answer to nationalist terrorism is a political one and that, in its absence, terrorism can been contained but not defeated.

It is against this background that the SAS began operations in Northern Ireland. Its task was to control the border country, particularly in South Armagh where the local population is largely sympathetic to 'the boys'. Its brief was to interdict the smuggling of men and weapons across the border, and to take the fight against

With a magazine capacity of 13 rounds and half a century of reliability behind it, the Browning High-power makes a fine personal weapon. In many cases, however, a sub-machine gun may be more appropriate, but the pistol can always be a back-up. The SAS use the Browning in this way.



In carefully-planned operations in the dangerous areas of South Armagh, the helicopter can provide much assistance in spotting (or not spotting, as here) suspects, as well as flying patrols along the border and performing communications duties.

the terrorists into the area where they felt the safest. The IRA frequently takes advantage of the poor communications between British security forces and the Garda in Eire, launching attacks and then fleeing over the border or even firing command-detonated mines from within the sanctuary of the Republic.

New unit developed

Experience led to the development of a new type of unit called a Military Reaction Force (MRF). When first created it was manned by the SAS and Intelligence Corps personnel with links to the Special Branch. The entire operation was co-ordinated in Belfast, ultimately by MI6 staff. MI6 continued to be responsible for its control until sometime in the mid-1970s when MI5 assumed control, and the Royal Ulster Constabulary became more involved. The changes seem to have led to unfortunate lapses in security leading to eight informers being murdered by the IRA in a single weekend. But initially the operation was conducted as if it was on foreign hostile territory with minimal involvement with regular police forces, and that only through the Special Branch.

Intelligence Corps operatives were responsible for collecting and collating information about the IRA and its supporters. The raw information or intelligence came in from informers, as rumour, as conversations overheard in a bar, from phonetaps, mail intercepts, and from friendly foreign intelligence services (e.g. the FBI, CIA, Deuxième Bureau, Interpol etc). Known IRA supporters and activists were placed under surveillance where possible. The immediate local tactical requirement was to discover border crossing points and to some extent to force the IRA into using specific areas by increasing the number of uniformed police and army patrols and checkpoints in the more obvious places. Information about arms caches was also sought; but as we shall see, not every known (or even suspected) arms cache was immediately raided. The actual executive arm of the MRFs were the SAS (and in some instances, the Royal Marines SBS and Arctic and Mountain Warfare Cadre). To give you some idea of how the executive arm worked (or works), come with us on a fairly typical operation.

An unconfirmed report has come in that there is an arms cache located in an abandoned farmhouse deep in 'bandit country', South Armagh. On the map, the farmhouse is seen to be located in a valley with fairly steep hills on each side. Proper access is only by a single, overgrown road. Aerial photography (carried out as unobtrusively as possible) shows markings on the ground outside the farmhouse that could be those of a vehicle; certainly the earth to one side of the farmhouse has recently been disturbed; and infra-red photography reveals that a heat source of some kind has been stationary outside the farmhouse within the past 24 hours. By 15.00 on the day that this information has been collated, the decision is made to send in a two-man SAS observation patrol. Luckily, the night is cold, dark and with a torrential downpour. Four men actually go out, walking at least 8 km (5 miles) across rough country to a preselected position in the hills above the farmhouse. Having arrived, three men start to burrow out a shallow hide while the fourth man keeps watch and begins to activate the sophisticated electronic surveillance gear they have brought with them, including perhaps night-vision devices and ground radar. Once the hide has been constructed, two men of the patrol slide into it and make themselves as comfortable as possible. It is now their home and they may have to stay in it for up to three days without moving outside. The other two patrol members finally camouflage the outside of the position as well as the electronic surveillance devices, then leave the area, but not in the same direction from where they came. Contact with base will be by high-speed Morse transmissions.

Signs of occupation

There is no sign of any movement at the farmhouse all the next day. That night another four-man SAS patrol arrives secretly at the farmhouse and starts to look, very carefully in case of booby traps, for the reported arms cache. The disturbed area outside turns out to be where recently-opened food tins have been buried. Tramps and kids are never that tidy, and as there are few Boy Scouts in bandit country it appears that at least one terrorist has spent a day or two in the location. Inside the farmhouse there is other evidence of occupation: an old kitchen table suspiciously free of dirt and dust, and the ashes of a hexamine (smokeless fuel) block in the fireplace. A combination of experience, luck and a metal detector leads the patrol to the arms cache, buried underneath the sink: a Colt 0.45-in semi-automatic pistol modified for fully automatic fire, a 0.38-in revolver, a humane killer cattle gun, and an M16 assault rifle. Tucked at the back is a 0.91-kg (2-lb) pack of plastic explosive. This is not the time to declare the find to the world, however. The four men of the patrol withdraw, leaving everything exactly as they found it. The two-man observation patrol is informed, as is base, and while the four-man patrol takes up temporary ambush positions on the track, MRF base sets up the next phase of the operation. Orders are drawn up by the local military commander for a battalion 'Search and Destroy' mission, lasting three days, that will start some distance from the farmhouse and reach it, in theory, by the afternoon of the third day. This mission will start in 24 hours and notice of it will be given to the local RUC. Naturally, no mention of the arms cache will be made . . . the farmhouse just happens to be in the line of advance. Naturally the IRA or Provos will learn all about the intended operation, and whoever put the guns, ammunition and PE in the farmhouse will, if all goes as planned, try to remove the cache as soon as possible.

Before morning the four-man patrol is withdrawn, while another comes out and takes up better prepared ambush positions. The two-man patrol on observation is left on its own for the moment. It has been out there only 36 hours, so another day or so will not hurt the men. Moreover, since one of the observation patrol is a qualified sniper, they may be able to provide some valuable firepower.

Listening devices, capable of transmitting up to 1.6 km (1 mile away), have been planted near the arms cache, inside the farmhouse. If someone does come for the arms, he or she is unlikely to be alone and it is possible that valuable intelligence will be gained from bugging any conversation.

Waiting time

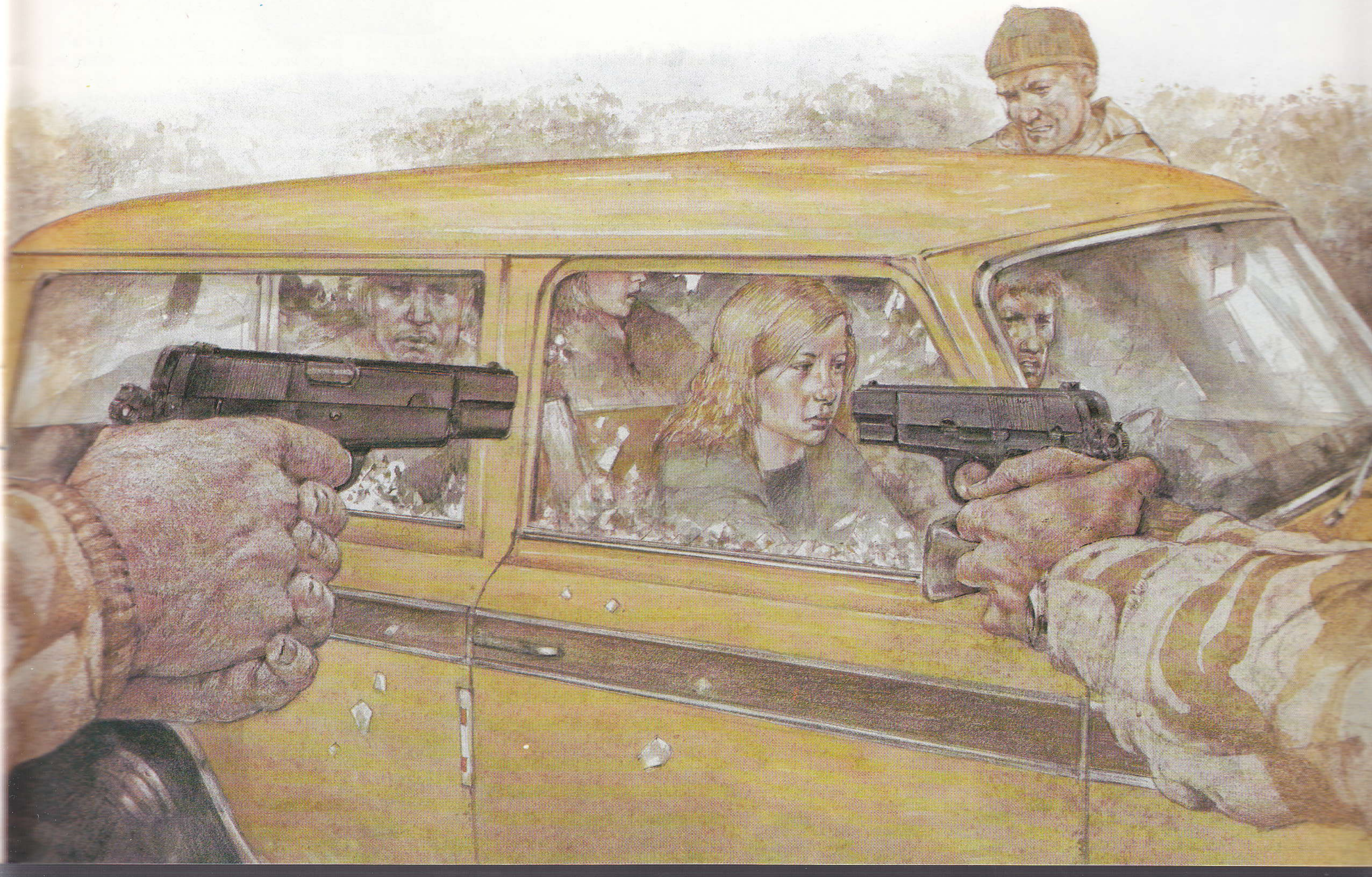
Now comes the waiting. Experienced soldiers try not to key themselves up as soon as they move into ambush positions because it is difficult and tiring to maintain a high level of awareness over a long time. However, they are trained to snap instantly to full alert from an almost relaxed state of mind and behaviour, just like a wild animal. Certainly this particular ambush drags on, and on and on. No terrorist arrives on the first night, or even on the second. It seems that either the people who put the arms there are captured, dead or out of the country; or indeed that they have decided to wait and see if the battalion operation discovers the arms. Perhaps they suspect a trap and (very sensibly) have decided not to risk their lives and liberty.

In the small hours of the third day the observation patrol at last detects some movement, but not in the direction that had been anticipated. The ground-based radar reveals the presence of at least one individual moving in the hills opposite the patrol's own position. The contact moves to a point overlooking the farm and stops. This unknown person or people can now observe the advancing battalion patrols, and a study of the map shows that a small wooded valley leads down from this position to a minor road some 3.2 km (2 miles) distant: an ideal line of retreat to a waiting car. Alternatively it could be someone planning to shoot a few rabbits or even an over-eager company commander anxious to see how his men are getting on, not realizing he has walked into an SAS ambush. The identity of the mysterious contact will be revealed by its behaviour when the pre-advance helicopter flies overhead: if the person or persons hide from it then the chances are they are up to no good. At mid-morning the 'chopper' makes its scheduled appearance, the pilot having been alerted to fly over the suspect area but not to hover there. He does so and reports that there is nothing to be seen, which means the contact has gone to ground: they are probably terrorists.

The SAS team decides to let them escape whenever they want to, and then to pick them up on the road in their presumed getaway vehicle. One very real danger is the chance that there is a remote-control mine concealed near the farmhouse which was overlooked in the original search. It may be that the terrorists are not there just to observe but are planning to detonate a bomb at the touch of a transmitter and then make their escape. All things considered it is unlikely, but to compensate them for any possible risks, the oncoming infantrymen will be allowed to discover the arms cache. This is a bonus for the patrol and, since the terrorists are probably expecting it to be discovered anyway, no suspicion will be aroused that the whole affair was set up from the beginning.

From their hide up on the hillside the SAS observers watch the presumed terrorists, who in turn watch the forward patrol approach and then cautiously enter the farmhouse. The Royal Engineer detachment and sniffer dogs are called up and eventually the arms, ammunition and explosive are removed. At this point the terrorists quietly leave the scene. Two men walk smartly down the valley to the road where a car stops for them. The car contained two women, and now it contains two innocent couples out for a drive. But as they drive away an innocuous looking van pulls out behind them and is still behind when they have to stop at a roadblock. The roadblock itself arouses no suspicion, for such blocks are a fact of life and the occupants of the car expected to meet one. The van pulls up very close behind. As the suspects wait for the soldiers to complete their routine check the car windows are suddenly blown in by industrial punches. The two women and two men find themselves staring down the barrels of several 9-mm Browning automatics held by a motley collection of individuals in an odd assortment of camouflage uniform. Another man, similarly attired, materializes in front of the car, his automatic pointed directly at the head of the driver. Surprise is complete; there is little future in arguing with a levelled Browning and within minutes the suspects are handcuffed, blindfolded and inside the van on their way to interrogation.

Very often, the first a suspect group will learn of a long, patient period of observation is the final moment of the arrest, when any temptation to fight can usually be quelled by the appearance of a number of 9-mm gun barrels purposefully pointed.



Heckler & Koch pistols

Since the early 1950s Heckler & Koch GmbH of Oberndorf-Neckar has been one of the major European small-arms manufacturers, and although best known for its range of rifles and sub-machine guns the firm has also produced a range of advanced automatic pistol designs.

One of the first of these was the **Heckler & Koch HK4** intended as a small pistol firing a variety of light ammunition varying from 9-mm Short (0.380-in), through 7.65-mm (0.301-in) to 6.35-mm (0.25-in) and even 0.22-in Long Rifle (5.59-mm). All that has to be done to change the ammunition fired is the replacement of the barrel, the springs and the magazine. The HK4 is no longer in production.

The much larger **P7 K3** pistol uses 9-mm Parabellum ammunition and is one of the West German 'super safety' pistols with various built-in safety features to meet police requirements. It uses a prominent grip safety to prevent firing if the pistol is dropped accidentally and the same grip safety also acts as a cocking device for complete one-handed operation. Locking is carried out using a gas-operated delayed-blowback method similar to that used on the Steyr GB pistol and the German Volkspistole of World War II. The P7 K3 has been adopted by the West German army and many police forces.

By contrast a third Heckler & Koch pistol, the **P9S**, uses a small version of the roller and block delay locking device used on the Heckler & Koch G3 assault rifle. This system uses the recoil forces to force the bolt-body to the rear but at the same time two rollers are forced into barrel extensions to prevent further movement until the pressure on the bolt body has dropped to a safe level. This safe locking system allows the 9-mm Parabellum cartridge to be fired from a relatively light pistol, and to add to the locking safety there are numerous others including the usual feature that allows the pistol to be carried safely with a round already in the chamber; this safety can be released by operating a small cocking lever. The P9S has been sold to many armed and police forces worldwide. At one time an 11.43-mm (0.45-in) version was produced for the American market, and a special version with a magazine holding 13 rounds, the **P7M13**, can be supplied. The P9S is licence-manufactured in Greece as the **EP9S**.

Specification

HK4

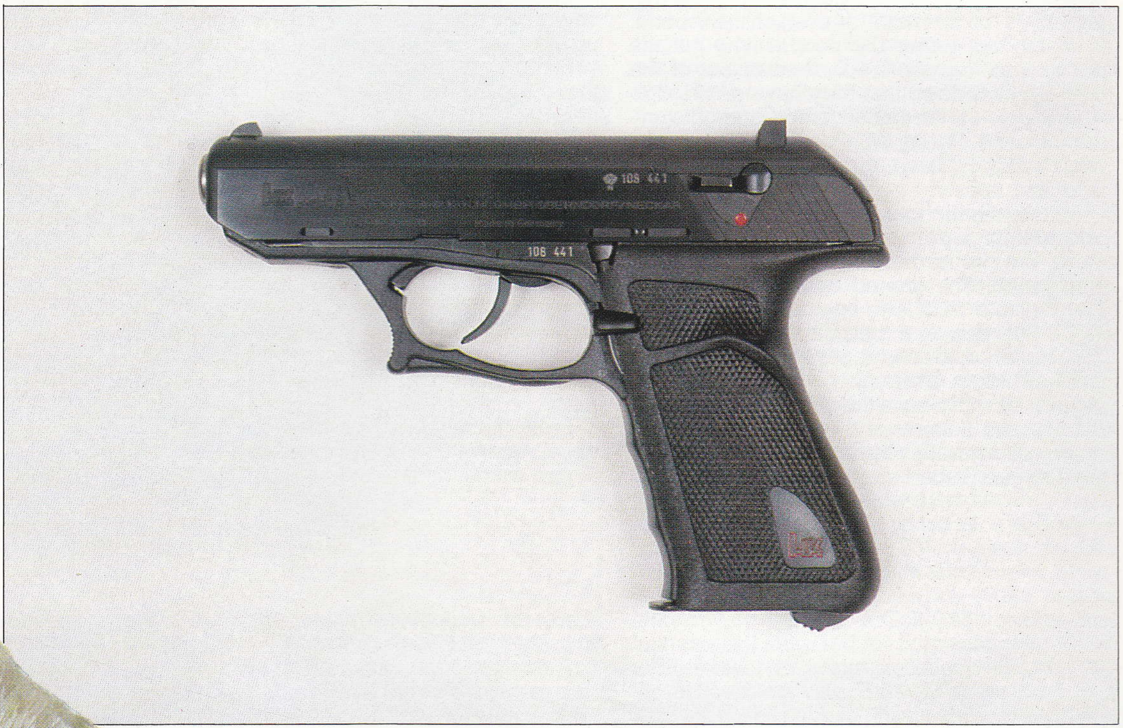
Calibre: 9 mm Short*
Weight: loaded 0.6 kg (1.32 lb)
Lengths: overall 157 mm (6.18 in); barrel 85 mm (3.35 in)
Muzzle velocity: 299 m (981 ft) per second
Magazine capacity: 7 or 8 rounds*
(* also other smaller calibres, all using an 8-round magazine)

P9S

Calibre: 9 mm (0.354 in)
Weight: loaded 1.065 kg (2.348 lb)
Lengths: overall 192 mm (7.56 in); barrel 102 mm (4.015 in)
Muzzle velocity: 351 m (1,152 ft) per second
Magazine capacity: 9 rounds

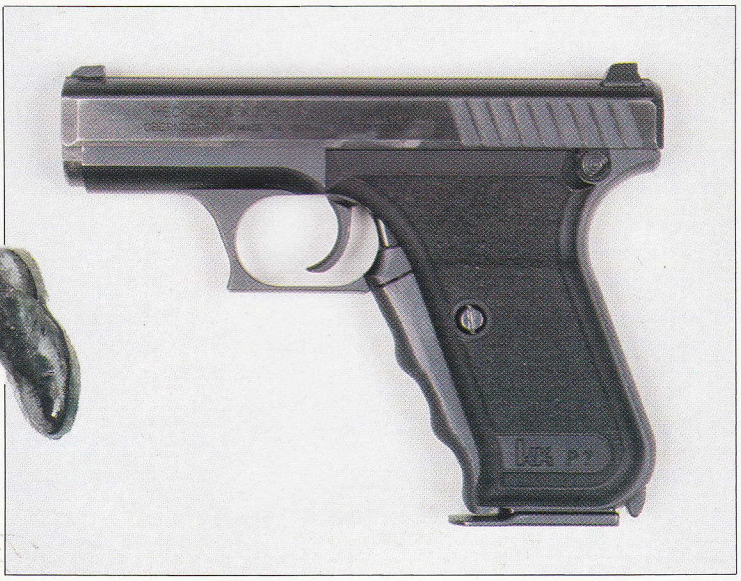
P7 K3

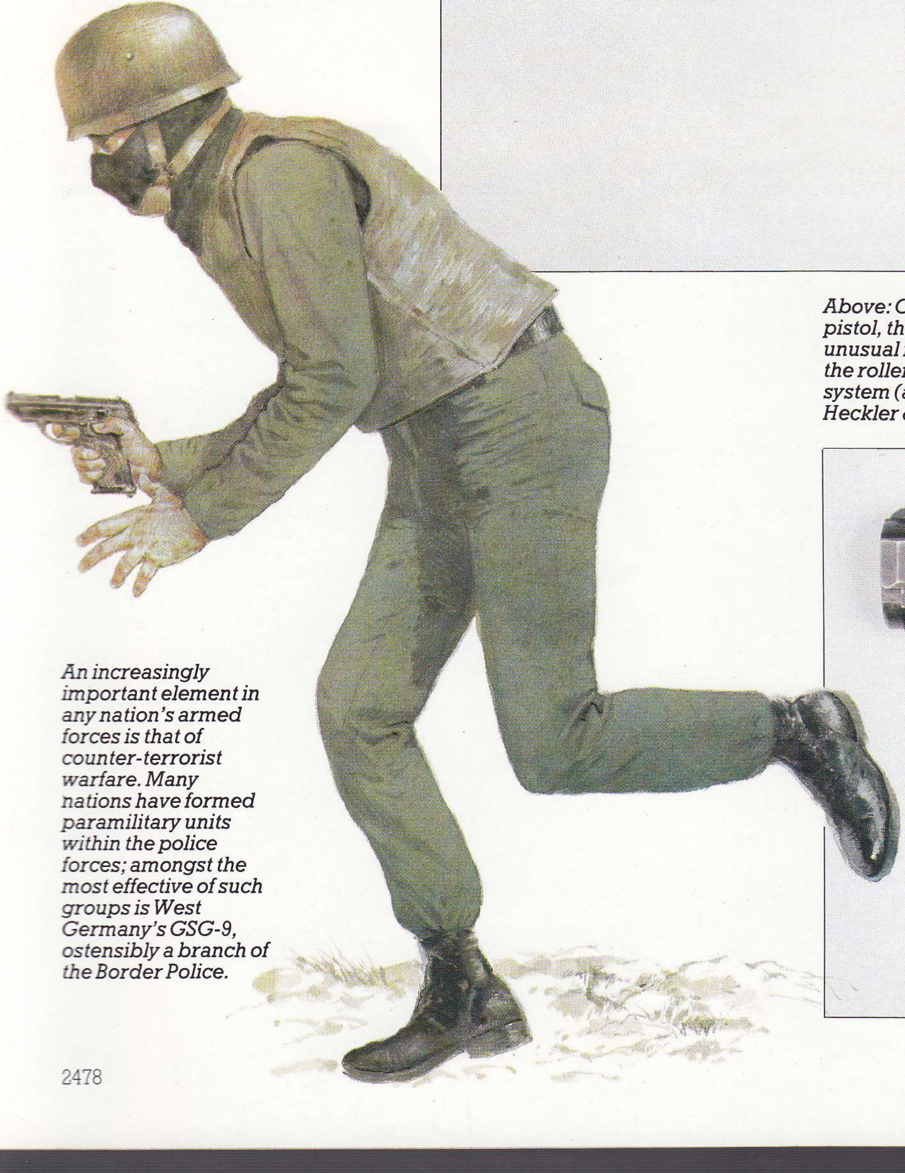
Calibre: 9 mm (0.354 in)
Weight: loaded 0.95 kg (2.09 lb)
Lengths: overall 171 mm (6.73 in); barrel 105 mm (4.13 in)
Muzzle velocity: 351 m (1,152 ft) per second
Magazine capacity: 8 or 13 rounds



Above: Conceived as a military pistol, the Heckler & Koch P9 is unusual in that it employs a version of the roller and block delayed-locking system (as used in the well-known Heckler & Koch family of rifles).

Below: Of rugged and simple construction, the Heckler & Koch P7 (PSP) self-loading pistol has been adopted as standard by the West German police and army. It has been designed as a police pistol.

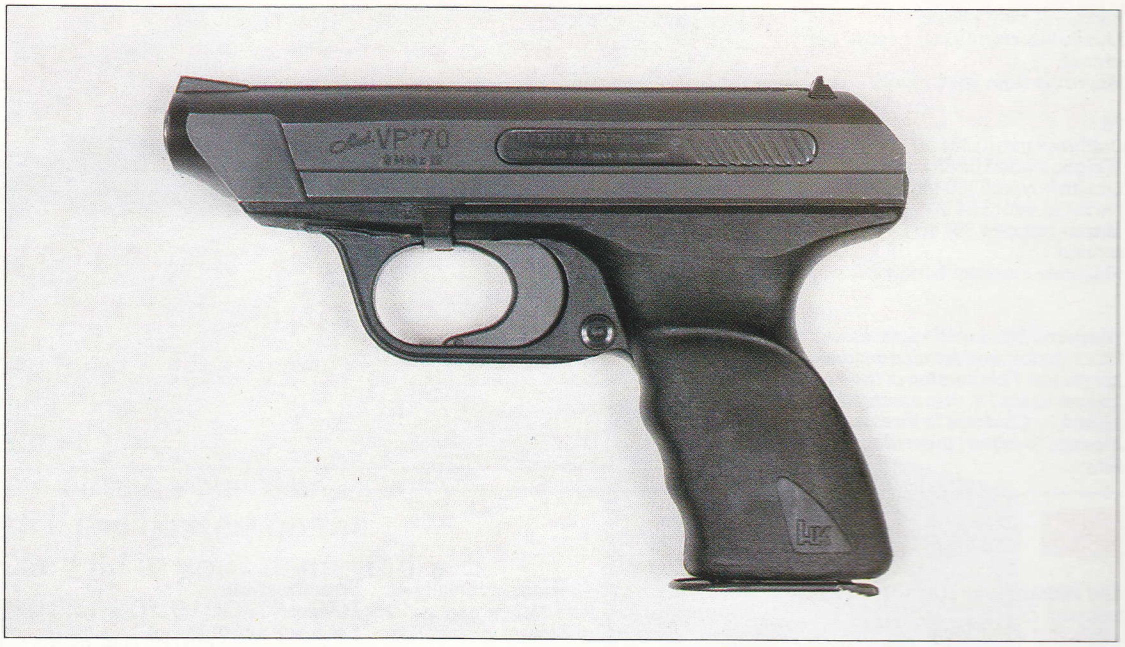




An increasingly important element in any nation's armed forces is that of counter-terrorist warfare. Many nations have formed paramilitary units within the police forces; amongst the most effective of such groups is West Germany's GSG-9, ostensibly a branch of the Border Police.

WEST GERMANY

Heckler & Koch 9-mm VP70M



Heckler & Koch's VP-70 represents one of the most successful compromises between handling and rate of fire.

The 9-mm (0.354-in) **Heckler & Koch VP70M** is a rather unusual pistol that at one time might have been placed in the machine pistol category, but for various reasons it cannot be called that for it has only a limited automatic-fire capability. A true machine pistol can fire in fully automatic mode, but the VP70M can fire only three-round bursts and then only when the carrying holster is attached to the butt to form a shoulder stock.

As a conventional pistol the VP70M uses a blowback action allied to an unusual trigger design. It uses a double-action mechanism and requires a pronounced first pressure when pulled back. Further pressure causes the trigger bar to slip off a spring-loaded firing pin to fire the loaded cartridge. There is thus no additional safety catch as it requires a definite pressure to fire the weapon.

Much of the receiver is made from hard plastics and there are only four moving parts, a number that has been kept to a minimum, for when the pistol is firing three-round bursts the cyclic rate of fire is equivalent to 2,200 rounds per minute which sets up considerable internal forces. The three-round bursts can only be fired when the holster/shoulder stock is fitted as the selector for the burst mode is in the holster. The stock engages in grooves on the pistol receiver and butt, and to take full advantage of the burst mode the magazine holds 18 rounds. Single shots can still be selected when the stock is attached.

A special version of the VP70M known as the **VP70Z** was produced. This version did not have the holster/shoulder stock capability and could not be used to fire bursts. It was produced for civilian sales only.

The VP70M caused quite a stir when it first appeared, and sales were made to several police and armed forces in Asia and Africa. But both the VP70M and VP70Z are now no longer manufactured. The VP70M in particular was viewed with deep suspicion by security forces in several European nations who had visions of these pistols falling into the wrong hands, but for all that the design features of the VP70M are almost certain to reappear in future pistols.

Specification
VP70M
Calibre: 9 mm (0.354 in)
Weights: empty 0.823 kg (1.814 lb); pistol loaded 1.14 kg (2.5 lb); pistol and stock loaded 1.6 kg (3.53 lb)
Lengths: pistol 204 mm (8.03 in); barrel 116 m (4.57 in); pistol and stock 545 mm (21.45 in)
Muzzle velocity: 360 m (1,181 ft) per second
Magazine capacity: 18 rounds
Rate of fire: 3-round burst (cyclic) 2,200 rpm

WEST GERMANY

Walther P1 and P5

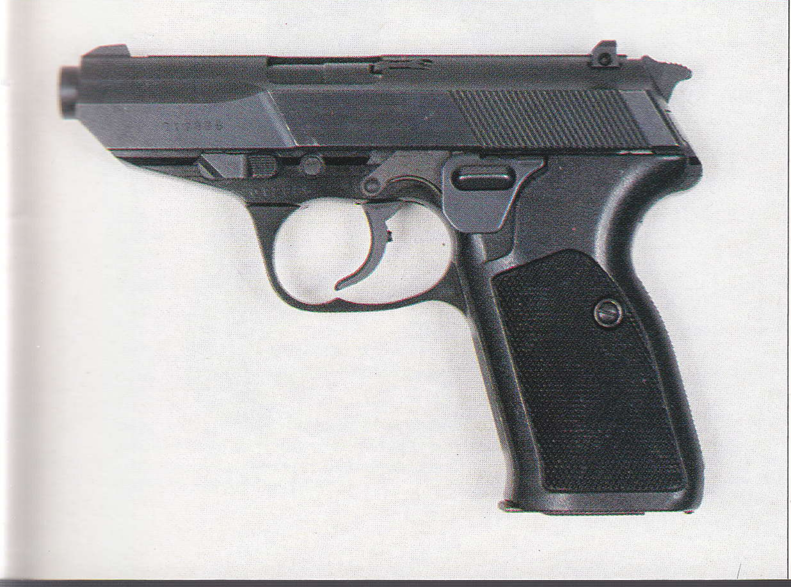
One of the most widely-admired and respected pistol designs that emerged from World War II was the 9-mm (0.354-in) **Walther Pistole 38**, or **P38**. This is still in production to this day at the Carl Walther Waffenfabrik at Ulm, but is now known as the **Walther P1**, though versions produced for civilian sales are still marked as the P38.

The main change in the P1 from the wartime version is that the modern weapon uses a lighter frame rather than the all-steel frame of World War II. Otherwise the only differences are the markings. The P1 remains an excellent combat pistol and it is still used by the West German armed forces and by those of a number of other nations, including Portugal and Chile.

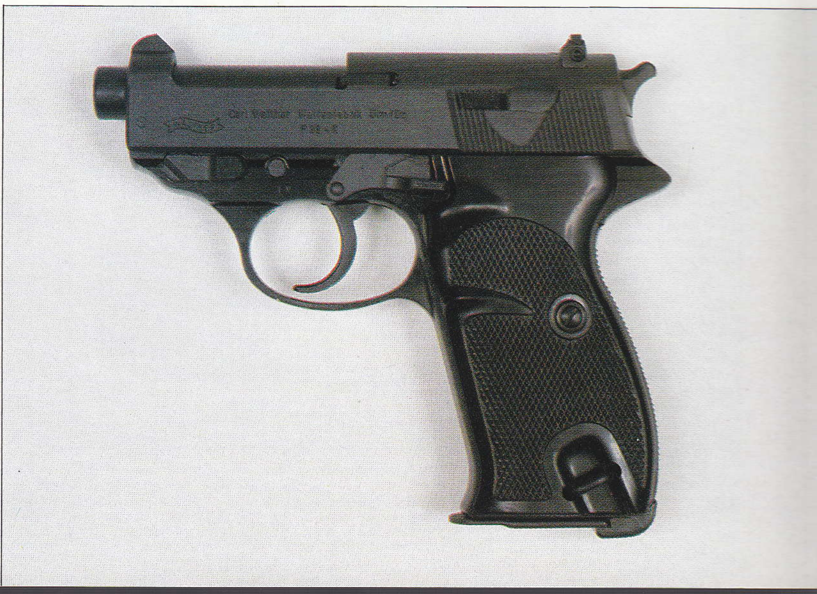
The **Walther P5** is a much more modern design that was originally produced to meet a West German police specification that called for a double-action trigger mechanism combined with a high standard of safety. The resultant weapon emerged as a very compact and neat design with the required double action but with no less than four inherent safety features. The first is that the firing pin is kept out of line with the hammer unless the trigger is physically pulled. Another is that even if the hammer is released by any other means than the trigger the firing pin will not be struck. The hammer itself has a safety notch to form the third safety feature, and to top it all the pistol will not fire unless the slide is fully closed with the barrel locked to it.

Getting all these safeties into a pistol as small as the P5 has been a major design accomplishment, but the P5 is an easy weapon to use and fire, and as far as the user is concerned there are no extra features to worry about. The P5 is easy to aim and shoot, and its smooth lines ensure that it is unlikely to be caught on clothing when being handled. It continues to use the same well-tried 9-mm Parabellum ammunition as the P1 and many other pistols. To date some West German regional police forces have adopted the P5 and it has been adopted as the standard police pistol for the Netherlands police force.

Specification
P1
Calibre: 9 mm (0.354 in)
Weight: loaded 0.96 kg (2.11 lb)
Lengths: overall 218 mm (8.58 in);



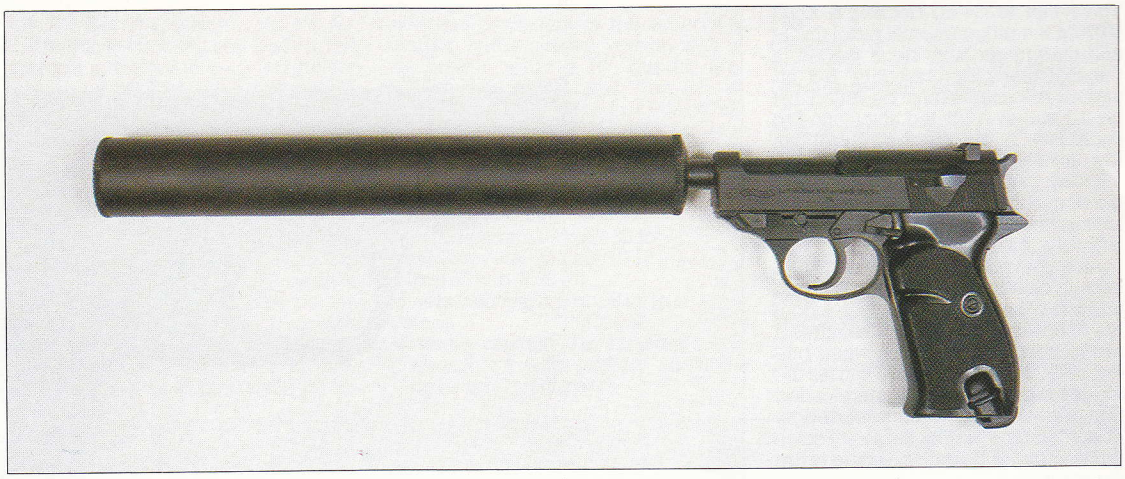
Walther's P5 pistol has been adopted by several European police forces, and has been built to a very high safety specification.



The Walther P1 is still produced commercially as the P.38. This is the P.38K, or short version of the pistol.

barrel 124 mm (4.88 in)
Muzzle velocity: 350 m (1,148 ft) per second
Magazine capacity: 8 rounds

P5
Calibre: 9 mm (0.354 in)
Weight: loaded 0.885 kg (1,95 lb)
Lengths: overall 180 mm (7.09 in); barrel 90 mm (3.54 in)
Muzzle velocity: 350 m (1,148 ft) per second
Magazine capacity: 8 rounds



Weapons fitted with suppressors are much in demand for clandestine purposes. This version of the P1, known as the P4, was among a batch seized by Customs to forestall an attempt to export them illegally to Libya.

USSR

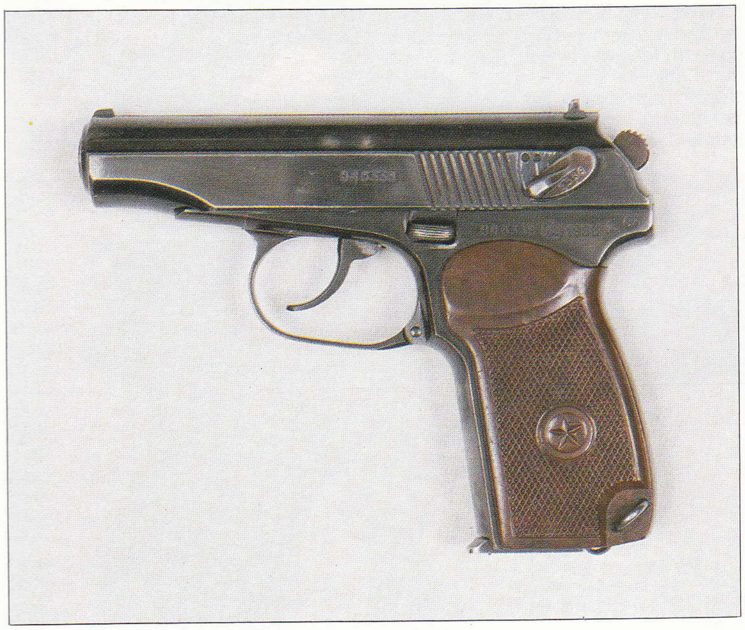
9-mm Makarov

The **Makarov** automatic pistol was developed in the USSR during the late 1950s and was first noticed by various Western intelligence agencies during the early 1960s. In design terms it is an enlarged version of the German Walther PP, a pistol first introduced in 1929 and ever since acknowledged to be one of the best of its type. However, the Makarov uses a different 9-mm (0.354-in) cartridge to any other in use, for it is intermediate in power between the 9-mm Parabellum and the 9-mm Short. This allows the Makarov to use a straightforward blowback operating mechanism without the complications that would be needed with a more powerful cartridge. The Makarov cartridge appears to have been based on a World War II design known as the Ultra which was not accepted for German war-time service, but which attracted some attention in the West for a while. The Ultra has not been produced in the West in any form, but the Soviets took to it and also use the Makarov round in the Stechkin machine pistol.

The Soviets know the Makarov as the **PM (Pistole Makarov)**. As well as being used by the Soviet armed forces the Makarov is also used by virtually all other Warsaw Pact forces and by a great many of the Eastern bloc police forces as well. It is a sound, rugged and simple weapon that can be relied upon to operate even under severe conditions. Most accounts state that the pistol is rather awkward to handle as the butt is rather thick, but this is presumably no problem for Eastern bloc soldiers, many of whom have to wear heavy gloves during most of the year.

The Makarov has been manufactured outside the USSR. One of the largest producers is China, where it is known as the **Type 59** and from where it is being offered for export in opposition to the Soviets who often hand out Makarovs as part of their military aid packages. The East Germans produce a pistol almost identical to the Makarov known as the **Pistole M**, while the Poles turn out yet another Makarov 'look-alike' known as the **P-64**. The special Makarov ammunition is also manufactured in all three of these countries.

Below: The Makarov is a straightforward blowback pistol apparently derived from the pre-war Walther PP and PPK designs.



Specification

Makarov
Calibre: 9 mm (0.354 in)
Weight: empty 0.663 kg (1.46 lb)
Lengths: overall 160 mm (6.3 in); barrel 91 mm (3.58 in)
Muzzle velocity: 315 m (1,033 ft) per second
Magazine capacity: 8 rounds

An officer of the Soviet Naval Infantry prepares to fire his Makarov 9-mm pistol. The Naval Infantry is small in comparison with most Soviet arms, but for its size is regarded as one of the most effective fighting forces possessed by the Soviet Union.